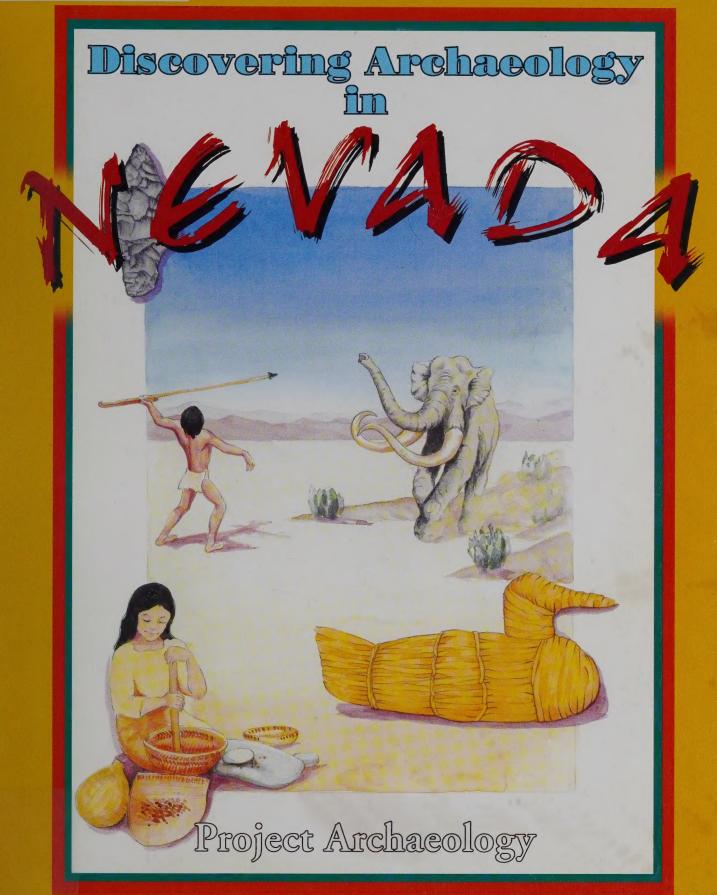


Intrigue of the Past



U. S. Department of the Interior Bureau of Land Management



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Heritage Education Program







Intrigue of the Past: Discovering Archaeology in Nevada

A project of the U.S. Department of the Interior, Bureau of Land Management, Nevada State Office and the Bureau of Land Management Heritage Education Program.

Published by

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Foreword

Intrigue of the Past: Discovering Archaeology in Nevada is part of the Bureau of Land Management's (BLM's) outreach program for teachers. The BLM manages approximately one-eighth of the United States or 261 million acres of public lands, primarily in eleven western states. Among federal agencies, the BLM manages the largest and most diverse array of historic and prehistoric archaeological resources; an estimated five million cultural sites are on those BLM lands. All across the nation sites are being vandalized at an alarming rate or disappear daily due to rapid urban development. The Bureau's archaeologists and law enforcement officers cannot monitor every site on public lands 24 hours a day. However, a committed public, including teachers and students, can help BLM preserve and protect the Nation's past.

In 1991, BLM embarked on a Heritage Education Program to educate young Americans about their nation's rich cultural heritage. The program's mission is to promote stewardship of cultural and paleontological resources so that present and future generations can learn from and enjoy their heritage on BLM lands without harm to the resources. Project Archaeology developed by BLM, is the cornerstone of the Bureau's outreach program for teachers and is available in many states. In 2001, BLM entered into an agreement with Montana State University to jointly sponsor Project Archaeology nationwide.

This book is the result of the collaborative efforts of many persons. I would like to thank everyone who has given us encouragement and information. I particularly want to thank Susan McCabe for shepherding the book through its early stages. Pat Barker and Tom Burke steadfastly supported our efforts, even when we decided a major rearrangement of material was necessary for clarity and continuity. Thank you to the twelve persons, listed in the acknowledgements, who authored the original material. We rearranged your work for fourth grade readers and we are grateful for all your efforts to make this book possible. Carolyn Goff crafted the lessons. The BLM Nevada State Office provided the final funding for printing this volume.

Wayne Rice designed a graphically pleasing book. Derrick Baldwin assisted with many tasks including editing, scanning, drawing, and finding illustrations. Marilyn Nickels and Carolyn McClellan allowed us the time we needed to complete this book. We sincerely appreciate all the hours of hard work everyone put into this publication.

February 2006

Margaret A. Heath Chief Heritage Education Project Manager Bureau of Land Management

Preface

The Bureau of Land Management (BLM) manages nearly 48 million acres of public lands in Nevada. The BLM is responsive to the public interest in the past and works to foster a public appreciation of the archaeological past in Nevada. To do this, the BLM depends on the public, especially teachers and the future generations they teach, to help understand, preserve, and protect our past.

We are pleased to present *Intrigue of the Past: Discovering Archaeology in Nevada* for use by Nevada's educators.

Ron Wenker State Director Nevada State Office Bureau of Land Management

Acknowledgements

Twelve persons authored the original text: Pat Barker, Thomas Burke, Gary Bowyer, Eric Dillingham, Cynthia Ellis, Robert Elston, Bryan Hockett, Eva Jensen, Chris Miller, Rebecca Palmer, Regina Smith, and Susan Stornetta. Carolyn Goff prepared the lesson plans. Karen Laramore, D.G. Nichols, Molly O'Halloran, and Eva Krakowska and Marcia Phillips created illustrations within the text. Ron James (also Nevada's State Historic Preservation Officer) provided the photo of the famous Tabasco Sauce bottle from Virginia City. Alan Schroedl, from P-III Associates, Inc., of Salt Lake City, Utah, provided outline diagrams of projectile points for use in the handbook. Bill Durbin, Nevada Division of Minerals, Las Vegas, supplied information about mine safety. Additional graphics came from the Heritage Education Program archives at the Anasazi Heritage Center. Sophie Sheppard prepared the original water color image used for the front cover art. Marguerite McKee, Nevada State Office, designed a suitable map for the back cover. Other agencies and institutions are acknowledged within the text for allowing us to use their figures and illustrations.

Illustration Credits

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◆ Jim Thomas, Creative Resources Inc., Flagstaff, AZ. pp. 1-8T, 1-10, 2-1, 2-10T, 3-1, 3-4T&B, 9-2B, 10-7T, 10-12B.

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Introduction

Project Archaeology in Nevada

Project Archaeology in Nevada is sponsored by the U.S. Department of the Interior Bureau of Land Management as well as other public and private partners. The goal is to foster stewardship of Nevada's cultural resources and to promote the educational, cultural, and scientific awareness to benefit diverse present and future generations. By introducing the Project Archaeology program into Nevada, we hope to equip Nevada's children with the knowledge to make wise decisions regarding the use and preservation of archaeological resources and an appreciation of Nevada's diverse cultural heritage.

Mission of Project Archaeology

Project Archaeology uses archaeological inquiry to foster understanding of past and present cultures; improve social studies and science education; and enhance citizenship education to help preserve our archaeological legacy.

Audience

Project Archaeology targets educators: classroom teachers, scout leaders and museum educators. Regional Project Archaeology facilitators provide training and mentoring to local educators, who in turn introduce archaeology into the classroom.

Find Out More About Project Archaeology

In Nevada, Project Archaeology offers workshops that are open to teachers, scout leaders, home school instructors, museum educators, and other interested persons. For more information or to sign up for a workshop, please call or write:

Project Archaeology Coordinator

BLM Nevada State Office 1340 Financial Blvd., P.O. Box 12000 Reno, Nevada 89502-7147 • Phone: 775-861-6415 • www.nv.blm.gov

National Project Archaeology

P.O. Box 170570 Bozeman, Montana 59717 • Phone: 406-994-7582 • www.projectarchaeology.org

BLM Heritage Education Program

P.O. Box 758, Dolores, Colorado 81323 Phone: 970-882-5600 • www.blm.gov/heritage/ Intrigue of the Past

Discovering Archaeology
in

NEVADA

Student Introduction

This book will introduce you to Nevada's past people. You will learn about archaeology, the study of past cultures and past peoples. Once you learn about these people, we hope you will be able to make wise decisions about the things they left behind. We hope you will honor and respect the places where clues to the past cultures remain.

This book is a part of a program called Project Archaeology. In Nevada the Bureau of Land Management (BLM) sponsors the program. The BLM is a part of our country's government. It manages almost 261 million acres of public lands. That is almost 1/8 of the United States. BLM lands are mostly in eleven western states. We think there are about five million cultural sites on those BLM lands. Many people are interested in those sites. Most people respect the sites when they visit them. Sadly, some people do not. Instead they harm the sites by taking things or vandalizing the sites. The BLM depends on the public, and even students, to help us preserve and protect our past.

Authors, Teachers, and Artists

It takes a big group of people to produce a book like this. We want to thank everyone for all the hours of hard work they put into this book. Most of the twelve authors who wrote the original text are archaeologists: Pat Barker, Thomas Burke, Gary Bowyer, Eric Dillingham, Cynthia Ellis, Robert Elston, Bryan Hockett, Eva Jensen, Chris Miller, Rebecca Palmer, Regina Smith, and Susan Stornetta. Carolyn Goff is a teacher who created the lessons. A book needs artists, too. Wayne Rice is an artist who designed the book and created its look. Derrick Baldwin is an artist who assisted with editing, scanning, drawing, and finding illustrations. Other artists are: Karen Laramore, D.G. Nichols, Molly O'Halloran, Ewa Krakowska, and Marcia Phillips, who worked on illustrations within the text. Artist Sophie Sheppard prepared the original water color image used for the front cover art, and Marguerite McKee designed the map for the back cover. The BLM Nevada State Office provided the final funding for printing this volume.

We are pleased to present to you *Intrigue of the Past: Discovering Archaeology* in Nevada.

Megg Heath Editor

Tips on How to Use This Book

Text Cues

Some words are written in **boldface type**. That is your cue that the word may be a new one for you. The definition will follow the word. You will find it also in the Word List at the end of each chapter and in the Student Glossary.

Some words are written in ALL CAPS. That is your cue that you will find the word in a side bar or illustration on or near the same page.

Glossary and Word Lists

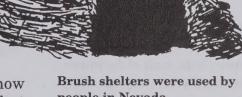
You will find all the words written in **boldface type** in a Word List at the end of each chapter. You will also find all of the words in the Glossary at the end of your readings.

Sorth sidle on Manager II no equit

Understanding Nevada's Past

Low do you know about the past? What happened vesterday at school? At home? What do you remember? Do you remember last week? Last year? How far back do your memories go? Memories are one way you can know about the past. Your memories are limited to things that happened to you. They don't go back to before you were born, so you need more than memories to know about the past.

You also learn about the past by having people tell stories about what happened before you were born. Your parents and other adults can tell about what happened to them when they were kids. This helps you understand how they lived. But, just like you, they can't remember what happened before they were born.



people in Nevada.

Understanding the Past

What if you wanted to tell people in the future about what happened in your life? You could write a book about it. Some people in the past wrote that kind of book. We can learn what they said about their lives from reading their books. Suppose someone who lived 100 years ago wrote a book about his or her life. If you read the book you could learn about that person. You could find out how he or she lived and what happened while the person was alive. Reading about the past is another way to understand it.

HISTORY (see page 1-2) is a way to understand the past by finding and studying books and papers written in the past. PREHISTORY (see page 1-2) is the study of the unwritten human past. The people who study history are called historians. The people who study prehistory are called archaeologists.

PREHISTORY

Prehistory is the study of people who had no written records. They didn't write records about themselves. No one else did either. History goes back only so far in time. Then it stops. This happens at different times in different parts of the world. But what about study of the more distant past? That is prehistory. It is the time before people left written records. The science of archaeology is a good way to learn about prehistory.

HISTORY

History is the study of the written past. It is a written story or record of what happened in the past. Written records are things like letters and public records. Books and newspapers are records. Even things like a road signs or a carving on a tombstone are records. If you wad up a note and pass it in class, it is a written record. So is your parent's grocery list.

A lot of things happen that no one writes down. People don't remember everything. Sometimes books have the wrong information in them. Sometimes people think other people are not important enough to write about. The other people may not know how to write. They did not leave written records. Historians study written records. So they used to write mostly about the powerful people. ARCHAEOLOGISTS study other things besides written records. They help us learn about other people so we do not forget them. They also help us learn about the lives of important people.

Luckily, people leave behind things that help us understand the past. We can also understand the past by finding, recording, and studying artifacts. **Artifacts** are the things that humans use or make and then leave behind. Think about everything you used or played with yesterday. Did you throw anything away? All those things are the artifacts of your day. We could learn some things about you by studying those artifacts.

Archaeology is the study of past culture by using artifacts. **Culture** includes all the things a group of people learns to do and believe. It includes the ways they do things. It includes the artifacts they use. Archaeologists are people who study past cultures. They



Archaeologists study written records and artifacts to learn about historic people.

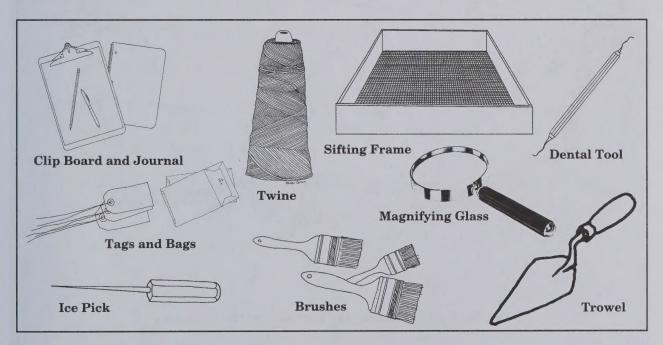
find, record, and study artifacts using many different TOOLS. Let's take this idea a little further.

Imagine the Future

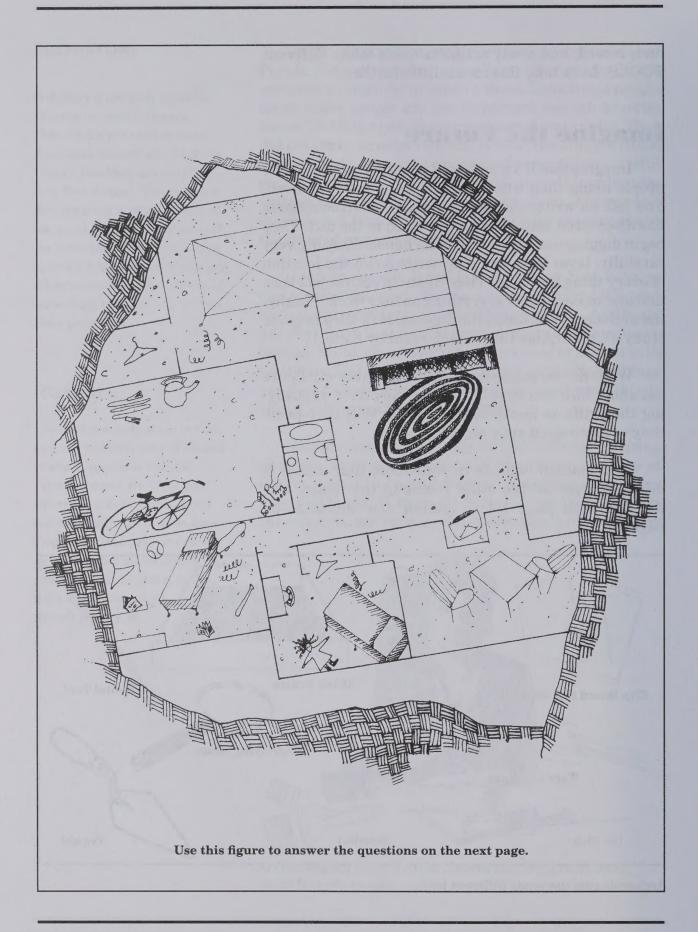
Imagine that it's a thousand years in the future. The people living then want to understand how you lived. You left no written records. A team of archaeologists has discovered your house half-buried in the dirt. They begin digging out each room of the house. They dig very carefully, layer by layer. They write down the location of every thing they find. They clean up each object they find and make a list of everything as they work. Finally, the archaeologists finish the digging. Now they begin to study all the things they found, room by room.

What do you suppose the archaeologists will figure out about how you lived? They can only do it by studying the artifacts found in your house. Will they know they've discovered your room?

Ask yourself what is in your room that makes it different from all the other rooms in the house. Use the figure on page 1-4 to answer the questions on page 1-5.



Archaeologists use many different tools.



Artifacts from Your House

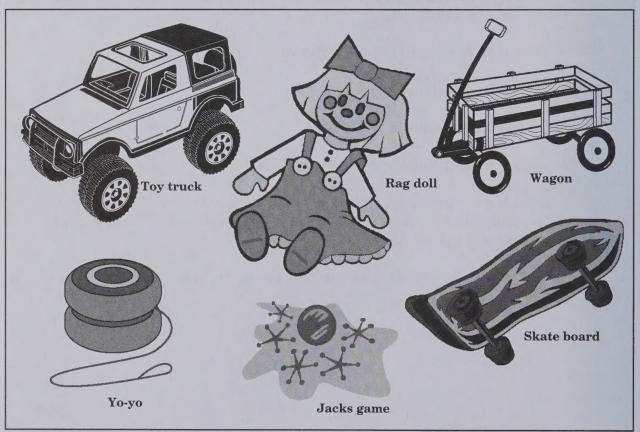
- Does it have a bed? Yes, but the archaeologists found beds in a couple of the other rooms, too.
- Does it have a table and a chair? Yes, but these were also found elsewhere in the house.
- Does it have a closet and a dresser? Yes, and just like before, these things showed up in other rooms.
- Are the clothes in the closet and dresser of this room smallish or largish? Smallish.
- Does it have toys? Oh yes, a bunch; only a few showed up in other rooms in the house.
- · Does it have children's books and video games? Yes.
- Does it have a skateboard? Yes.
- Does it have a shower or bathtub? No.
- Does it have a stove or refrigerator? No.
- Does it have an automobile or pickup truck, a washing machine or dryer, power tools? No to all of these, although such things showed up in other parts of the house.
- What conclusions do you come to about the people lived in the house?

The team of archaeologists thought about the kinds of things they found in each room of the house. They also thought about what they expected to find and didn't. They came to several conclusions about how the people in the house lived.

They concluded that people had used several rooms for sleeping and storing personal things. These rooms had furniture for sleeping and storage. There were lots of personal items. They found no evidence of cooking or bathing or washing clothes. There was nothing about storing cars and trucks or repairing things.

Another conclusion was that ONE OF THE BED-ROOMS MUST HAVE BELONGED TO A KID. Toys, children's books, and a skateboard showed up in this room. The clothing they found there was smaller than grown-up clothing.

Archaeologists rarely get the chance to study one person's life. This is because the passage of time hides



One of the bedrooms must have belonged to a kid.

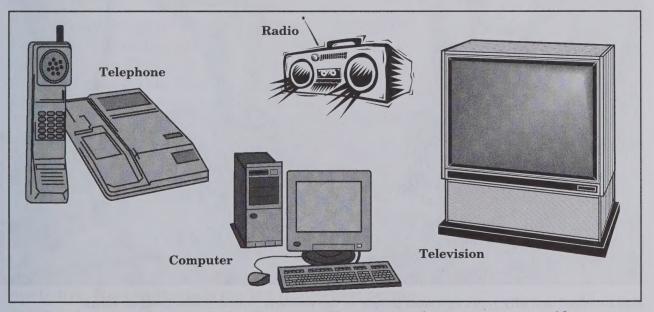
the details of any one individual life. However, archaeologists dig and study many houses and buildings. This helps them learn about whole groups of people. They learn how the people went about making a living.

People of the Past

Humans have to find food and shelter. They raise children and cope with injury and illness. They have fun and resolve conflicts. Now, and in the past, people do this by adapting to the place where they live and coping with changes through time.

In the modern world fast travel, telephones, TV, and computers play a big part in how we meet these needs. In our daily lives, we use things and watch programs that we imported to Nevada. These things come from all over the United States and the world. Most of what we use comes from somewhere else. This was not always the case.

ONLY FIFTY YEARS AGO television was just beginning. There were no home computers or video games. People used big adding machines because they didn't have calculators. Video games didn't exist.



Only fifty years ago television was just beginning. There were no home computers or video games.

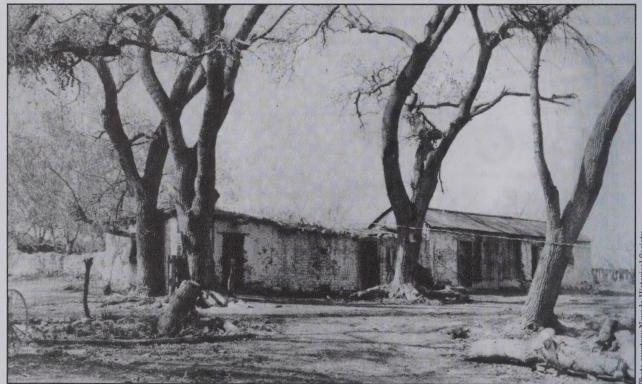


Horses-many people used to ride horses.

One hundred years ago, people did not listen to the radio all the time. No one had figured out they could make money by running a radio station. Only a few places had telephones. Lots of people had no electric services. People were just inventing airplanes. Folks rode around in automobiles for fun. They didn't think cars were a necessary way of getting around.

ONE HUNDRED AND FIFTY YEARS ago most people in the western United States lived on farms and ranches and walked or rode HORSES to get around. People made most of what they used at home. They grew or gathered their food close to home. If you did things this way, can you see how these things would change how you live? Do you have anything that someone made at home? In Nevada? Does your family grow any food? How would you get to school without a bus or a car?

Archaeologists try to understand how groups of people lived. One way they do this is by thinking about those people's LIFESTYLES (see page 1-9). A **lifestyle** is the way people take care of their needs by adapting to



One hundred and fifty years ago most people in the western United States lived on farms and ranches.

to courtesy Inevada Historical Society

their surroundings. Lifestyles reflect the choices people made in the past. Lifestyles also reflect the choices they make now.

A lifestyle can change in two ways. One way is by reacting to big changes in conditions. The other is by making a series of small changes over time.

People can come up with new ways of living when forced to do so by events. These changes are called **adaptation**. Big events can cause people to change their lifestyles in order to survive. A big change can be a change in climate. It could be a change in population size. The arrival of a new group of people could also be a big change. The invention of the computer and the Internet are big changes. Sometimes a group of people is successful in making a big change in lifestyle. Sometimes it is not.

People can also change their lifestyle more slowly. They do this by making a series of small changes through time. This is also adaptation. For example they might try to grow a new crop. They might find a new type of clay to make into pots. The people may not even know that they are changing their lifestyle. Small changes build up over time. If there are enough of them they result in a new lifestyle. There may not have been any big events causing rapid change.

There are many different cultures and lifestyles. People do all kinds of things and they do them in many different ways. That makes studying cultures hard. So archaeologists divide what the people do into smaller parts. They study how people got food, plants, and stone. They study the tools people used. They study how people made tools. They study people's shelters. They look at the ways people arranged their villages. They study how the people organized themselves socially.

Food and Raw Materials

People have to find food and raw materials in order to live. Raw materials are the things that people

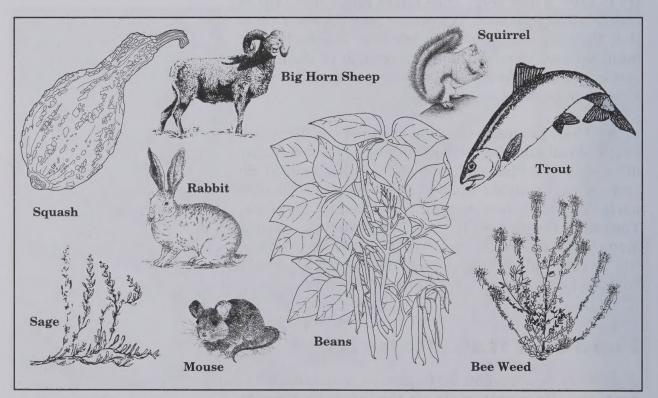
Changing Your LIFESTYLE

Imagine you live in a pretty safe neighborhood—no bad guys, not many snakes under the porch, not much traffic. You walk to school every day. But then your surroundings change. A couple of big bullies move in down the street. You have to walk past these kids on the way to school. Now you have a problem. How do you solve it? To solve it you may have to change the way you go to school. This would be a small change in your lifestyle.

use to make other things. Plants are raw materials for food and baskets. Rocks are raw materials for stone tools. In the past, people had to know about the plants and animals around them. What were they good for? Which plants and animals were safe or dangerous? Where and when could they be found? PEOPLE HAD TO KNOW how to gather or grow plants. They had to know how to hunt or raise animals. Then they had to know how to prepare plants and animals into items they could eat or use. They had to know how to store food and keep it safe from mice and insects.

Tools

People had to have TOOLS (see page 1-11) and to know how to make and use them. When we think of tools, we think of things like hammers, saws, rakes, and drills. Tools also include things like clothes to keep warm. They include baskets and pots for storing food, cooking equipment, and tools to eat with. In the far past when someone needed a tool he or she made one from stone,

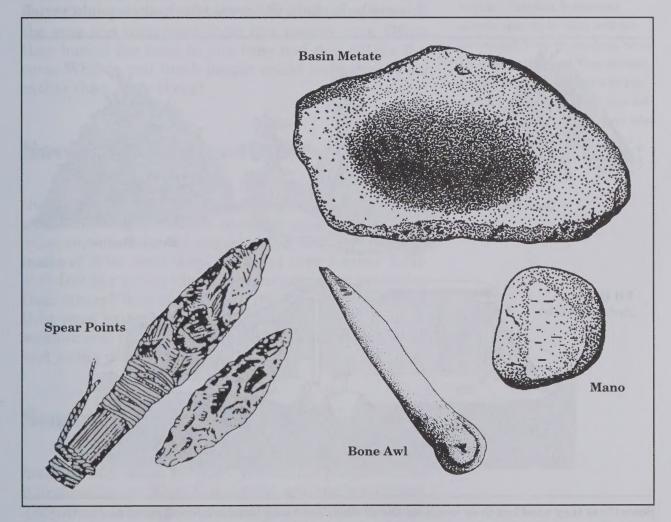


People had to know how to gather or grow plants. They had to know how to hunt or raise animals. Then they had to know how to prepare plants and animals into items they could eat or use.

bone, wood, hide, or a plant. In more recent times, we have specialists who make tools from metal, glass, and plastic. We buy tools when we need them.

Shelter and Settlement

Archaeologists study how and where people chose to live. They study what kind of shelter the people chose. Many people today live in wooden houses. The houses face a street that connects to other streets in a grid pattern. In other places and times people chose to live in earth-covered houses. Some lived in tents of hide. Some even lived in snow houses called igloos. Archaeologists are interested in finding out why people lived in one place instead of another. How long did they stay in one place? How far did they move to new places? Did they return



People had to have tools and to know how to make and use them.

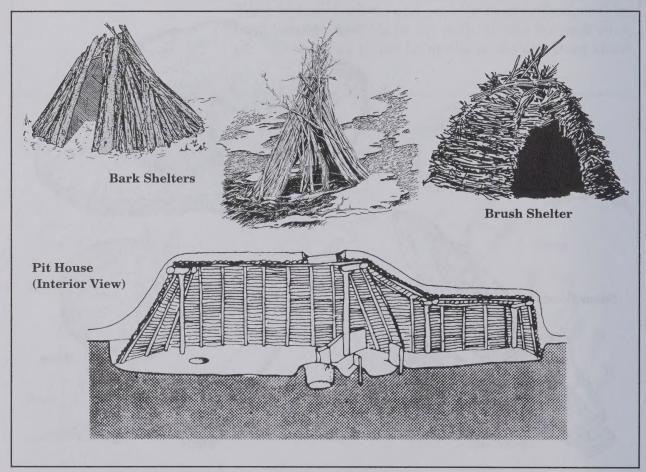
A Place from the Past SITE

A location or place.

"Sites" are places where people did things and left things behind. There are many archaeological sites in Nevada where prehistoric people once lived. to their old places? What did the shelter look like?

Archaeologists find clues that people lived in many different kinds of places. They find most of these **SITES** out in the open. That means there is no natural protection from the weather. However, when people lived in these open places, they may have built SHELTERS. Perhaps they used brush or wood for the shelter. They may have combined rocks and dirt, or some other materials to make a cozy shelter.

Sometimes prehistoric people lived in what archaeologists call "rock-shelters." These are protected places found at the base of a large rock or a cliff. There may be an overhanging rock ledge. The ledge gives protection from rain and sunshine, sort of like a roof does. Parts of a rock-shelter can be very dry. That helps to preserve things like baskets. Otherwise the baskets might perish



Sometimes they used brush or wood for the shelter. They may have combined rocks and dirt, or some other materials to make a cozy shelter.

easily. Caves are other places that preserve things well. Can you think why archaeologists like to find caves and rock-shelters?

Prehistoric people used caves for various purposes. They sometimes lived in caves and stored tools and food there. Other times they had religious observances in caves. CAVES are underground holes with openings that reach the surface. The cave is sheltered from wet weather and big changes in temperature. It made caves good places in which to live if there was food and water nearby.

People did not always live in caves. Very often, they used caves as places to store tools such as nets or baskets. They also stored raw materials that they might want to use in the future to make other things. Sometimes people would use tools while they were in the area and then store them in a nearby cave. Often they buried the tools in pits they had dug within the cave. Why do you think people would bury their tools rather than carry them?

Social Organization

Archaeologists study the way people arrange themselves into families and larger groups. We call this **social organization**. Archaeologists try to answer questions about social organization. Did groups have leaders? Who were they? How did they become leaders? Did the group consider some people to be better than others? Who were they? Why did the group think they were better? What did the group expect of men, women, and children? What did it expect of old people and young people? Why?

Summary

Archaeology is the scientific study of the artifacts made by humans in the past. We call the people who do it archaeologists. They find, record, and study artifacts. They study whole groups of people and their culture.

Good Places to Live CAVES

Caves are often dry, so they were good shelters. This also helps preserve artifacts. Usually the artifacts would perish easily. Nets, sandals, and moccasins might rot. Basketry and tools of wood or bone usually rot away. Prehistoric people made most of their tools from these things. When scientists find these artifacts they are very excited. It helps them figure out how people adapted to changes.

Unfortunately, caves are often targets of vandals. Sometimes people even dig in them without permission. They do not keep notes about what they find. They do not make maps. They destroy information about the past. Often they sell the stolen artifacts. The buyers take the objects far away. This means archaeologists cannot study them and learn from them.

They study how the people made a living. Now, and in the past, people do this by adapting to the place where they live. They cope with changes. We call this their lifestyle.

Archaeologists study lifestyles in four ways. One is food and raw materials. Another is tools and how people made and used them. A third is shelter and settlement. The fourth is social organization. We can use these four ways to learn about the lifestyles of early people in Nevada.

Pronunciation Guide

a as a in cash
A as a in place
ah as o in shop
au as ou in out
ch as ch in chicken
& as e in mitten
e as e in pet
E as ee and y in breezy
g as g in go
i as i in pit
I as i in mice
j as j in jump
ng as ng in swing

O as o in so
o as aw in paw
oi as oy in boy
oo as oo in hoot
sh as sh in shut
th as th in thick
th as th in the
uh as u in butter
ur as ur and er in murder
u as oo in book
y as y in yet
zh as si in vision

WORD LIST

- adaptation [ad-ap-tA-shuhn] a change made because of new conditions.
- **archaeology** [ahr-kE-**ol**-uh-jE] the study of past culture by using artifacts. **Archaeologists** are people who study past culture by using artifacts.
- artifact [ahrt-i-fakt] something made or used by people.
- **culture** [**kul**-chur] what a group learns to believe, do and make.
- **history** [**his**-tuh-rE] the study of the past using written records.
- **lifestyle** [**lIf**-stIl] the way a group of people adapts the way they live to conditions around them.
- **prehistory** [prE-his-tuh-rE] the study of people who had no written records.

- raw material [raw muh-tir-E-uhl] something from which people make some other thing.
- **site** [**sIt**] a place or a location; in archaeology, any place where people did something.
- social organization [sO-shuhl Or-gan-I-zA-shun] the way in which people arrange themselves into families and larger groups.

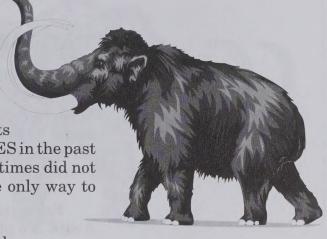


Nevada's People

People have lived in Nevada for 12,000 years. During that long time they lived in many different ways. In Chapter 1 we learned to call these lifestyles. Scientists think there were five different LIFESTYLES in the past in Nevada. The people who lived in those times did not leave written records. Archaeology is the only way to find out how they lived.

You might wonder how we know that there were five lifestyles in the past. Archaeologists look for clues about how people lived. Sometimes they find clues that people were not living in the same way anymore. They were living in a very different way. This means the people had a new lifestyle.

Does this mean a new group of people came to the place? Probably not. It probably means that the old lifestyle gradually changed. After a while it turned into the new lifestyle.



Mammoths were big and dangerous to hunt.

Nevada's Lifestyles

- 1. Paleo-Indian Lifestyle: 12,000 years ago to 8,000 years ago. The first people came into Nevada about 12,000 years ago.
- 2. Archaic Lifestyle:

Northern Nevada: began 8,000 years ago. In northern Nevada, the Archaic Period started changing to a different lifestyle about 175 years ago.

Southern Nevada: began 8,000 years ago and ended about 1,000 years ago.

3. Agricultural Lifestyle:

Southern Nevada Only: began 1000 years ago when people started growing plants in Southern Nevada.

4. Ethnohistoric Lifestyle:

Northern: began 175 years ago and lasted into the late 1800s or even early 1900s. **Southern**: began about 250 years ago when non-Indians started exploring and later settling in

Southern: began about 250 years ago when non-Indians started exploring and later settling in Southern Nevada.

5. Modern Lifestyle: began about 150 years ago when people began using machines.

But some scientists think something else might have happened. They think that new Indian people arrived. The new people replaced the people who were already living in Nevada.

Paleo-Indian Lifestyle

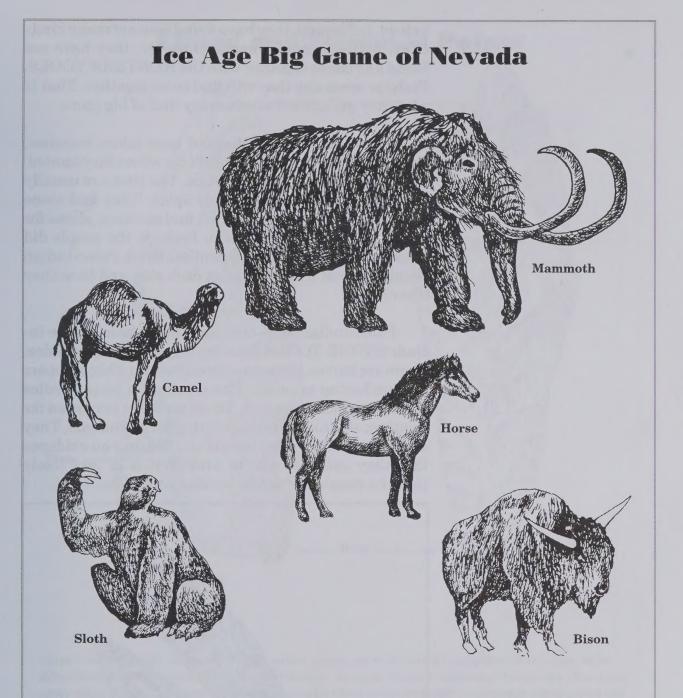
We don't know what **Paleo-Indians** called themselves. They left no written records about their lives. In fact we don't even know what language they spoke. They lived in Nevada and other places in North America. They were here from at least 12,000 to 8,000 years ago.

Scientists have found Paleo-Indian hunting sites. A **site** is a place where people did something. At these sites the scientists found hunting tools. They also found bones from animals. The Paleo-Indians had killed the animals. This helps us know a little about their tools and their way of life. Archaeologists have not found sites where Paleo-Indian people lived. That means we do not know much about their settlements or social groups.

About 12,000 years ago, the climate was very cold. It was the end of an Ice Age. However, it was beginning to grow warmer. People moved south across North America from Alaska. Some of them came to the Nevada area.

These people followed and hunted herds of large animals, called BIG GAME. Most of these animals no longer roam the world. The wooly mammoth and giant ground sloth disappeared long ago. You won't find a giant bison either. Some of them looked a lot like some animals we see today. For instance, the wooly mammoth looks very much like a big, hairy elephant. The giant bison looks like a modern buffalo with straight horns. A dead mammoth or bison would provide a great deal of food.

Archaeologists know Paleo-Indians hunted big game. In some parts of the West they have found Paleo-Indian tools among big game bones. They have also found cut marks on the bones. That shows that the people used stone tools on the bones. But such finds are rare



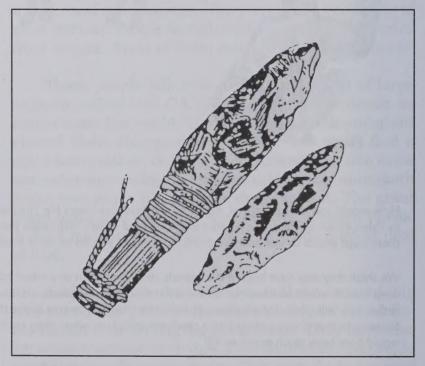
How would you hunt big game? Big game was just that—very big. They must have presented a great challenge to Paleo-Indian hunters. The hunters had hand-held spears with stone tips. So they had to get very close to these huge beasts to use their weapons. What might you do to make hunting them easier, and less dangerous?

We think they may have hunted the animals by driving them to a water hole. The animal would get stuck in deep mud. It would be easier to kill the beast then. In some places, archaeologists find bison skeletons together in a "kill site," at the bottom of a cliff. We think the people drove the animals over the cliff to kill them. Sometimes they drove a beast into a small, narrow place where they could trap it. The stuck or injured animals would have been much easier to kill.

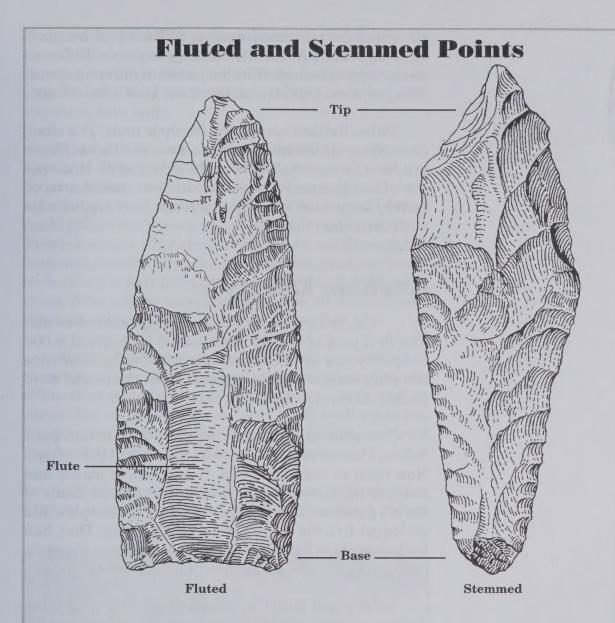
indeed. In Nevada, they have found bones of many kinds of extinct big game animals. However, they have not found any bones together with the HUNTERS' TOOLS. Perhaps some day they will find some together. That is why they get excited about every find of big game.

Paleo-Indian people hunted near lakes, marshes, and rivers. Archaeologists find places where they hunted. The hunting sites look a lot alike. The sites are usually small and are scattered widely apart. They find stone artifacts at the sites. They don't find shelters, places for storing food, or piles of trash. Perhaps the people did not stay long in one place. Scientists think Paleo-Indian people did just a few things at each site, and then they moved on.

Paleo-Indian sites contain a lot of tools. These include STONE TOOLS for scraping and cleaning hides. There are knives, crescent-shaped tools, and big choppers for butchering animals. There are even bone needles for sewing hides together. These tools are very good for hunting, skinning, and butchering large animals. They are not good for gathering plants. We find no evidence that they gathered plants. However, it is very likely that the people ate seeds, berries, and roots.



Paleo-Indians used stone tools for cutting.



Hunter's tools: fluted and stemmed points. The earliest people used points we call fluted points. Clovis points are the earliest fluted points the people used in Nevada. The points are big, up to several inches long. The base of a Clovis point curves slightly upward, toward the sharp point. The sides of Clovis points are straight or sometimes slightly curved outward. The makers of Clovis points removed one or more long, narrow flakes from the base toward the tip. Archaeologists call this flake scar left on the point the "flute." Making flutes without breaking the point is extremely difficult. Why do you think Paleo-Indians would risk breaking points by trying to create a flute?

Paleo-Indians put stemmed points on the tips of their spears. These generally are not quite as old as fluted points. The name comes from their unusual base or stem. We think the Paleo-Indians made the stemmed points so they could remove and change them quickly. They could have put the points easily into the tip of a spear. We think the stemmed points may have come out of the spear shaft easily when the hunter stabbed the animal. The points would have stayed in the animal. That would have helped to bring the animal down more quickly.



Paleo-Indians used spears for hunting.

Paleo-Indians used wooden SPEARS for hunting. They tipped the spears with stone spear points. Different groups of people used different points at different times. This helps archaeologists figure out how old sites are.

Paleo-Indians used stone for their tools. The stone came from different places. Sometimes these places are very far apart. What might this mean? It means one of two things. Either Paleo-Indians moved around in very large territories. Or, perhaps they traded a lot with each other.

Archaic Lifestyle

The Archaic lifestyle lasted a long time in Nevada. The first part of the **Archaic** lasted from about 8,000 to 5,000 years ago. Archaeologists find only a few sites from this time. They contain clues that the people were finding new ways of doing things.

The climate was much warmer than it had been before. There had been lakes and marshes in the valleys. Now most of them dried up. New kinds of plants and animals appeared. Other plants disappeared. Some of the big game animals disappeared too. The people could no longer live the way they had been living. They had to change their Paleo-Indian lifestyle or leave the area. Archaeologists think most people left Nevada.

After about 5,000 years ago there were a lot more Archaic sites. Many things were different than before. The Archaic people had to figure out new ways to get enough to eat. They used many different kinds of plants. There were new kinds of large animals to hunt. Archaic people went where they could find both plants and animals. They hunted animals during the seasons when they could find the animals.

The new approach to finding food led to other new things. There were new tools to do things with. For example, the people needed to gather seeds and process them into flour. This required several tools, some new and some old. Archaic people made seed beaters for knocking the seeds off plants into gathering baskets.

They made special trays for heating the seeds slightly to make it easier to get the hulls off. They created trays to separate seeds from seed hulls by tossing the seeds into the air. They made stone grinding tools to grind the seeds into flour.

The Archaic people noticed that many seed plants appeared after WILDFIRES. So they began to use fire as a tool! They could set a wildfire as a way to encourage the growth of useful plants. With this new tool they could gather more seeds than they could eat at one time. People began to store seeds to help them get through the lean months of winter. Seed storage required more new tools. They constructed storage pits and sealed food in them. Now people stayed in one place all winter, near their stored food.

Staying in one place for the winter required even more new things. Now people constructed winter houses. Often they returned to the same houses every winter. Since they were there for so long, trash built up in the winter sites. Their trash was composed of broken tools and flakes, food bones, charcoal, and ash.

In spring and summer, people moved from place to place in their territory. They had short-term spring



Grassland wildfire. Archaic people used fire as a tool.



Brush shelters were used in Archaic camps.



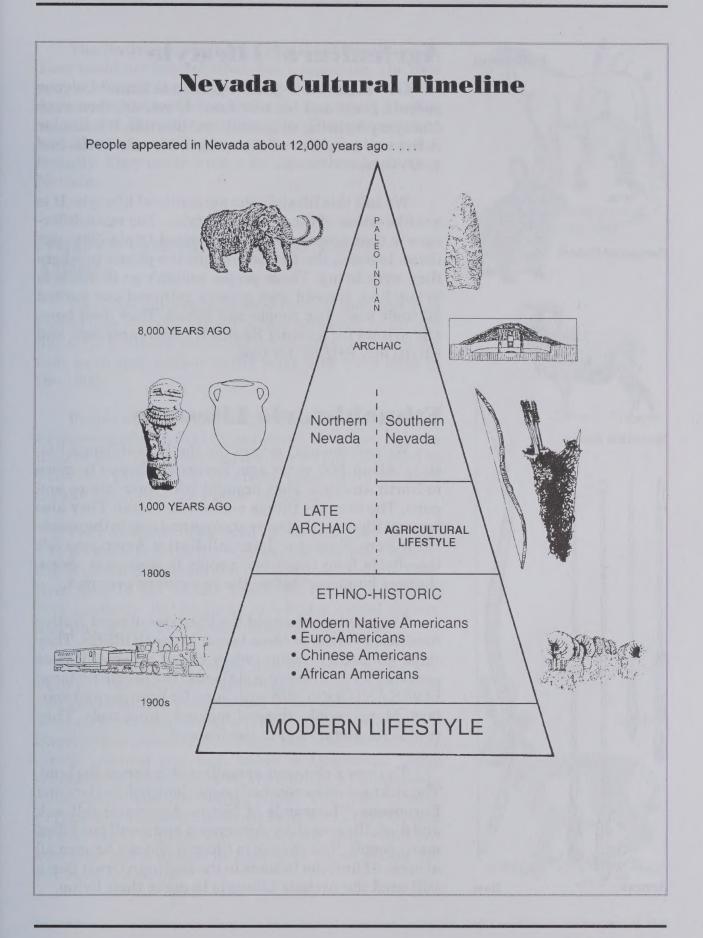
Piñon Pine trees provided nuts and wood.

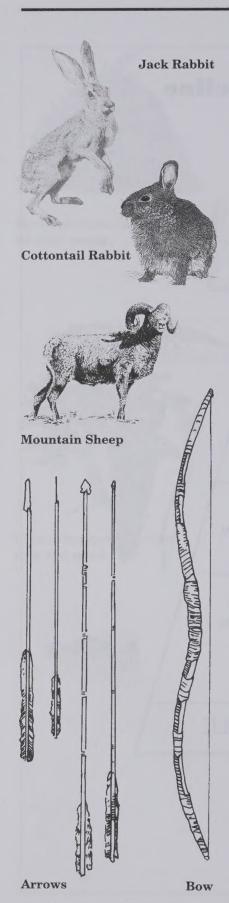
and summer CAMPS. They moved to a new place when they could find the most food plants and animals there. They ate much of this food on the spot. They dried any extra food and took it back to the winter camp for storage. They used sites in different places for different purposes. The things people left behind in these sites show how they used the sites. For example, hunters left lots of broken spear points at hunting camps. They left grinding stones at seed camps.

Archaic people did not live exactly the same way everywhere in Nevada. Some groups lived around lakes and marshes. Others lived in dry mountain valleys. The northern Nevada lifestyle was different from that in southern Nevada. That is because plants, animals, and rocks were different in the northern and southern parts of the state. PIÑON PINE trees occur across much of northern Nevada. They are much more scarce in the south. Yucca plants and desert tortoises live in the south but not the north. On the other hand, sage grouse live mostly in the north but not the south.

People followed the basic Archaic lifestyle for a very long time. They lived this way for thousands of years. Then, in some places they began changing their lifestyle. They started to grow plants. In other places the people did not change their lifestyle. They continued living the Archaic lifestyle in northern Nevada. There the people never started farming. (See Cultural Timeline.)

Some people in southern Nevada changed their lifestyle. They decided to learn how to grow things. They probably learned how to do it from the people living east and south of them. Those people lived in present-day Utah and Arizona. Already they were growing plants. About 1,000 years ago southern and eastern Nevada people began to plant seeds. They started to harvest plants. They changed their lifestyle. They continued to hunt and gather animals and plants. Now they also based their new lifestyle on farming.





Agricultural Lifestyle

Do you have a vegetable garden at home? Do your parents plant and harvest food? If you do, then your family is practicing an agricultural lifestyle. It is similar to the way people lived in southern Nevada in the last 1,000 years.

We call this lifestyle the agricultural lifestyle. It is not like either of the earlier lifestyles. The main difference is that people no longer traveled to plants to use them. Instead, the people brought the plants to where they were living. These people couldn't go to markets to buy food. Instead they grew or gathered and hunted all their food. The people still fished. They used bows and arrows for hunting RABBITS, deer, antelope, and BIGHORN SHEEP for food.

Ethnohistoric Lifestyle

We call the next way of life the Ethnohistoric lifestyle. About 500 years ago, Europeans began to move to North America. They brought with them horses and guns. The brought things made from metal. They also brought illnesses that were strange and new to the people living here. Sooner or later, all Native Americans felt the effects from these new people in some way. Some changes happened before the two groups ever met.

These things changed the lifestyles of most Native Americans. Many of them began using HORSES. They could go farther, faster, when riding a horse. Horses provided ways of carrying big loads. The people replaced BOWS AND ARROWS with guns for hunting and warfare. Many people stopped making stone tools. They traded for metal tools to use instead.

The new sicknesses spread quickly across the land. The sickness often reached people long before they met Europeans. Thousands of Native Americans fell sick and died. Illnesses like chicken pox and small pox killed many people. The change in lifestyle did not happen all at once. At first the Indians in the northern Great Basin still used the Archaic Lifestyle to make their living.

The Native people faced a greatly changing world. They could not control what was happening. The new people brought the new ways to Nevada. The Native Americans had to make a shift to a new way of life that we call the Ethnohistoric lifestyle. They struggled to live. They began using new tools and doing things differently. They made a place for themselves in the new Nevada.

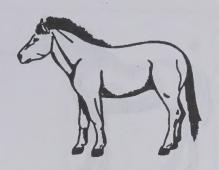
Native Americans in the 1800s

We do not know exactly when modern Indian groups moved into Nevada. We think this happened sometime during the last few thousand years. They lived in ways that were very similar to the ways they lived later in the 1800s.

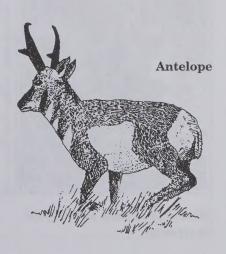
People wrote about the tribes they met in the 1800s. Archaeologists can read these records about how Indians used to live. Then they can compare what they read to what they find in sites. This helps them figure out more details about how the earlier people lived.

Four modern tribes lived in Nevada. (See page 2-13.) We know them as the Washoe, the Northern Paiute, the Western Shoshone, and the Southern Paiute. They lived here in the middle 1800s. All four groups lived very similarly. But each one also had a special culture and way of life. They spoke different languages.

Some groups did things that others didn't do. For example, the Southern Paiute raised crops and hunted and gathered. They also mined underground salt. The Washoe harvested acorns on the California side of the Sierra Nevada mountain range. The Washoe had very strong cultural ties with tribes in California. Their neighbors in Nevada did not. The Northern Paiute made duck decoys and flat-bottom boats. The other groups did not. The Western Shoshone built ANTELOPE traps so they could capture the animals for food. Since not everyone had antelope in their area those people did not build the traps.



Ethnohistoric people could go farther, faster, after horses arrived.





Modern horses came to the Americas in the 1500s with the Spanish.

In the 1820s things began to change for Nevada's native people. Other people began to arrive. Most of the first new people were **Euro-Americans**. That means some were Europeans. The rest were Americans whose relatives had come from Europe.

The first thing that happened was that fur trappers arrived. They came from the eastern part of the United States and from Canada. They came to northern Nevada to trap beaver.

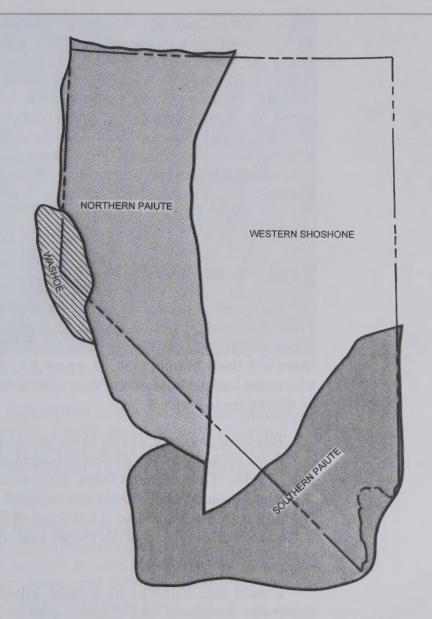
At about the same time sad things happened in southern Nevada. Earlier, the Spanish had brought HORSES to America. Some Indian groups, like the Utes, adopted the horses. Others, like Southern Paiutes, did not. This is because they lived in places where horses could not get enough to eat. In the 1820s some of the groups with horses began capturing other Indians. These other people did not have horses. Utes carried off Southern Paiute people. They sold them as slaves to the Spanish. They especially liked to take women and children. Later they sold the slaves to Mexicans and people from the United States. Many of the slaves went far away to Spanish ranches in New Mexico.

The lifestyles changed the most when Native Americans met the new people. Before the 1850s Nevada's people rarely saw anyone new. But then new people began to travel to California. They hoped to get rich from mining gold. They came across Nevada from the eastern United States. Some of them stayed. The native people living here could no longer live in the old way. They had to change their lifestyle.

The MINERS came from the eastern part of the United States. Some even came from Europe. That meant they had to travel across Nevada to get to California. As these people traveled west they needed things like meat, water, land, and wood. They used the things they found along the way. The Native Americans were already living there. They needed the land, meat, water, and wood too. Some of the people from the United States and Europe began to settle in Nevada. Now many more people were competing for the same small supply of food and water. The new people had guns, horses, and iron. These gave



Miners used pans to find gold in streams.



Nevada's Four Modern Tribes

Northern Paiute [nOr-thurn pI-yoot] Native American people who usually lived in the western part of present-day Nevada.

Southern Paiute [suh-thurn pI-yoot] Native American people who usually lived in most of the eastern and southern part of present-day Nevada.

Washoe [wah-sh0] Native American people who usually lived in a small area around Lake Tahoe.

Western Shoshone [wes-turn shO-shO-ne] Native American people who usually lived in a large area in the central Great Basin.

them an advantage. It changed the Archaic lifeways of Native Americans forever.

The study of archaeology tells us many things. Nevada had been home to people for nearly 12,000 years. We have learned that when their surroundings changed, people changed their ways too. Change went along at a very slow pace in prehistoric times. But 150 years ago lifestyles started changing fast. That is when the flood of new people burst upon the scene. Who were these outsiders?

The New People

Many new people came to Nevada in the 1800s. They were from nearly every country in Europe. Some began to arrive from China in the mid-1800s. Most of them left their homes to start a new life. Some people who came had parents and grandparents who had come as slaves from Africa.

But what, exactly, did all these people come here to do? Many came by WAGON across mountains, prairies, and deserts. They came to farm. They soon discovered that the Nevada desert could not support the kinds of farming they were used to. That kind of farming does better in wetter places with richer soil. So, ranching became a better bet.

People also came to mine gold, silver, and other minerals. Ranchers and miners needed other goods and services. They needed lumber so logging and milling began. They needed a way to get cattle and sheep to market so railroads sprang up. They needed blacksmiths to make tools from iron. They needed someone to haul freight. Towns sprang up. Now people needed doctors, lawyers, laundries, restaurants, stores, and newspapers.

Modern Lifestyle

At the same time all this was going on they began to use machines. These replaced many kinds of hand tools



Many people came to Nevada by wagon.

they used in agriculture and business. The machines made some kinds of work easier to do. They could do some other kinds of work faster or better. The introduction of machines created a new, modern lifestyle based on machines.

Lifestyles have changed at an ever-faster pace since the mid-1800s. Think about the businesses and machines of today that weren't around one hundred years ago. How about fifty years ago? Or right about the time you were born? Or maybe even last year?

Archaeologists teach us how people created the modern lifestyle. They study the artifacts the people used. They study the places where people lived and worked. They learn all they can about how people changed their ways of doing things. They learn about how people used the new lifestyle.

Pronunciation Guide

a as a in cash
A as a in place
ah as o in shop
au as ou in out
ch as ch in chicken
& as e in mitten
e as e in pet
E as ee and y in breezy
g as g in go
i as i in pit
I as i in mice
j as j in jump
ng as ng in swing

O as o in so
o as aw in paw
oi as oy in boy
oo as oo in hoot
sh as sh in shut
th as th in thick
th as th in the
uh as u in butter
ur as ur and er in murder
u as oo in book
y as y in yet
zh as si in vision

WORD LIST

- Archaic [ahr-kA-ik] people who lived in North America from about 8,000 years ago until historic times.
- **Euro-American** [yur-O-uh-**mer**-&-kuhn] an American whose past or present relatives were from Europe
- Paleo-Indian [pA-lE-O-in-dE-uhn] people who lived in North America 12,000 to 8,000 years ago.
- **site** [**sIt**] a place or a location; in archaeology, any place where people did something.

73 Pinning Down the Past

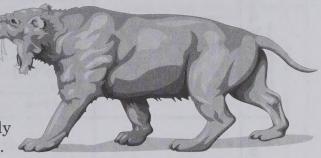
Humans make, use, and get rid of a lot of stuff. It could be tools, weapons, buildings, roads, clothing, decorations, pottery, toys, food, trash—you name it. Scientists call all this stuff artifacts.

Archaeologists are scientists. They study the artifacts of people who are now long gone.

They want to understand what ancient places were like. The want to know how those places affected the people. They want to understand the culture of those people. But studying artifacts alone does not give them enough clues. Archaeologists must ask other scientists for help. See the "KID'S GUIDE to Archaeologist's Helpers" on page 3-6 to find out who some of them are.

Archaeologists see the distant past as a mystery. They work at solving the mystery in much the same way a detective solves a modern mystery. Archaeologists look for **evidence** or clues about the world of long ago. They think about how humans might have adjusted to their world. Where did ancient people live? What did they eat? How did they capture their food? Who farmed? Who HUNTED? Who gathered? What evidence is there for change in the environment? Is there evidence for changes in the kinds of plants or animals that lived there? How might such changes have affected people's way to make a living?

Archaeologists try to match two kinds of evidence. The first kind is clues they find about the plants, animals, soils, and climate. The second kind of evidence is the clues they find when they look at artifacts. They put all the clues together. Then they INFER, or reach a conclusion, about the clues. They call the conclusions **inferences**. They use their inferences to explain what people long ago did and what their lives were like.



Saber-tooth cats and Paleo-Indians hunted big animals.

Explain the World MAKE AN INFERENCE!

Scientists explain the world by examining what they know about it. They use facts about what they know to draw conclusions or inferences about what they don't know. Sometimes they are right and sometimes they are wrong. This is a good way to learn.

Geologic Time

Era	Periods	Epochs	Years Ago	Notes	Comments
Cenozoic— The age of mammals	Quaternary	Holocene	(millions)	lce ages—lce sheets cover North America 4 times	That's us!
		Pleistocene	2 million		Brr!
	Tertiary	Pliocene Miocene Oligocene Eocene Paleocene	5 24 38 55 63	Mammals become the most dominant life form	Pretty hairy!
Mesozoic— The age of dinosaurs	Cretaceous		138	Dinosaurs are the most dominant life form	Dino-
	Jurassic		205		might!
	Triassic		240		2.00
Paleozoic— The age of fishes	Permian Pennsylvanian Mississippian Devonian Silurian Ordovician Cambrian		290 330 365 410 435 500	Fish are the dominant life form	Sounds pretty fishy
The Great Unconformity		570	Long time of erosion	Even the experts don't know what happened!	
Pre- Cambrian	Younger		1,700	Life appears on earth	Now
	Older				that's old!

Nevada Now . . . and Then

Now we will take a closer look at what kind of place Nevada was in the old times. But first, we must set the scene.

Nevada lies in the middle of what we call the Great Basin—"Great" because it covers such a huge area and "Basin" because its rivers do not flow to the sea. Elsewhere in North America, rivers flow TO THE SEA. But here in the Great Basin, they flow into lakes or they sink into the ground. Think of the Great Basin as a bowl. The Sierra Nevada forms the west rim. The Wasatch Mountains of Utah form the east rim.

It is also important to know about weather in the past. Scientists divided up the past into periods. This makes the past easier to study. We live in a period of time that they call the Holocene. It began about 10,000 years ago. Before that came the Pleistocene. It lasted for two million years. (See page 3-2.)

Sometimes we call the PLEISTOCENE the "Ice Age." That is because during this period thick, heavy ice built up. It covered large areas of North America. At other times the weather warmed up enough to melt the ice. When that happened the ice sheets and glaciers shrank or disappeared.

Some scientists think that today's HOLOCENE is merely a temporary warm spell. They think that icy conditions will return in the future. Others think that the Holocene is much warmer than the warm times of the Pleistocene. They think that ice sheets are not likely to return for a long time.

Many large animals lived during the Pleistocene. Most are **extinct**, which means they have died out. In Nevada these included the Ice-Age elephants known as mammoths. Camels, llamas, and giant ground sloths wandered about. A large bison with straight horns chomped on plants. Giant short-faced bears were twice the size of grizzly bears. Even cheetahs roamed the countryside. They probably hunted llamas, small horses, and antelope. Huge vultures known as condors soared high

TO THE SEA, TO THE SEA

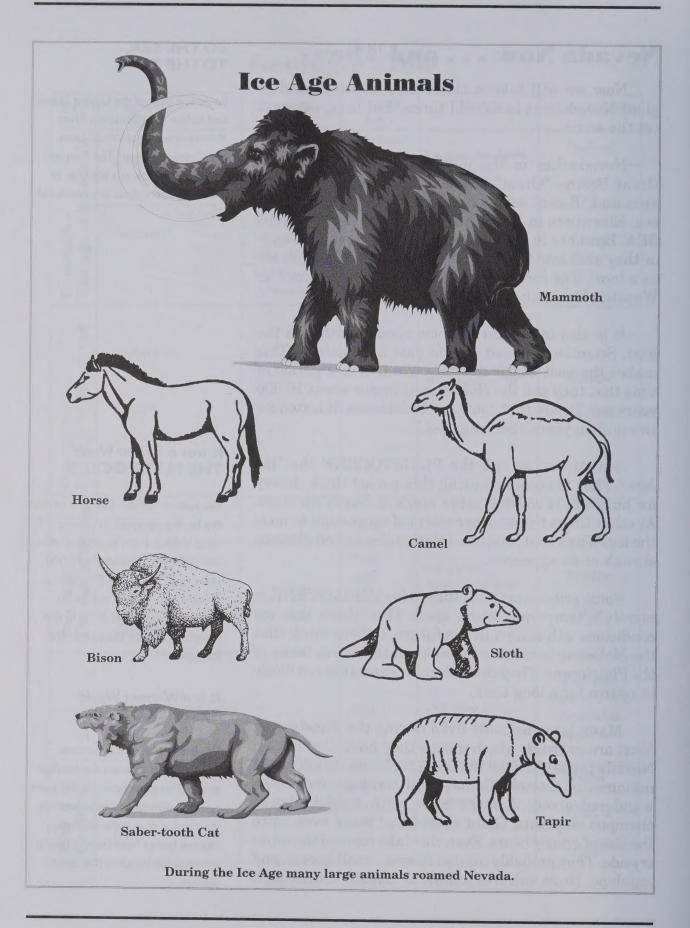
Look at a map of the United States and follow the Mississippi River. Where does it go? What about the Colorado River? The Missouri River? Now look at a big map of Nevada. Where does the Humboldt River go?

It was a Colder World THE PLEISTOCENE

We sometimes call this time period the Ice Age. It lasted for a long time. It dates from about two million years ago until about 10,000 years ago. During the Pleistocene, ice covered much of the earth. Human beings began living in the Americas toward the end of the Ice Age.

It is a Warmer World THE HOLOCENE

We live in the Holocene time period. It began when the Ice Age ended. This was about 10,000 years ago. The climate has been warmer than it was during the Ice Age. Human beings have lived in North America during all of this time period.



overhead. Some, but not all, of the horses of those times were smaller than those we see today. They became extinct before people arrived.

Other creatures lived alongside these huge ICE AGE ANIMALS (see page 3-4). Some still live in Nevada. You can still see pronghorn antelope and bighorn sheep. Perhaps you will spot a coyote or a fox. You might also see bobcats, marmots, and rabbits.

But the Pleistocene ended 10,000 years ago. The ice melted. Some of the animals died out. What happened?

Geological Evidence

Geology provides some clues. It is the scientific study of the history of the Earth. It is the study of how the Earth was formed and how it has changed. Geologists find clues in the Earth's strata or layers of rock. They call this STRATIGRAPHY. These clues can help us discover what the landscape of Nevada looked like thousands of years ago.

Nevada contained many lakes during the Pleistocene. We know this because we can still see their ancient shorelines and lakebeds. Today, we call these extinct lakes **playas**. The flat, dry playas of western Nevada were all part of one huge, ancient lake. We call it Lahontan. There is another ancient lake called Bonneville. It stretched from northeast Nevada all the way to what is now Salt Lake City, Utah. This lake dried up and left behind salt deposits. Today, we know this playa as the Bonneville Salt Flats.

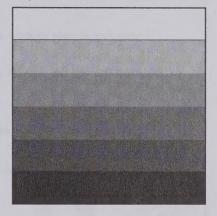
Many of Nevada's valleys contain playas. This is how we know that Nevada was a much wetter place in former times. And we know that it was colder, too. If you live near Elko, take a trip up the Lamoille Highway into the Ruby Mountains. There you will see evidence of Pleistocene GLACIERS.

Paleobotanical Evidence

Ancient plants also provide clues. Paleobotany is the study of plants that lived in the distant past. Paleo-

Layers and Layers STRATIGRAPHY

We call the study of layers of rocks and dirt stratigraphy. As time passes by each new layer of dirt or rock covers over the layers beneath it. The layer on the bottom is the oldest. The layer on the top is the youngest. The different layers often have different colors of dirt. Geologists study layers in the earth. Archaeologists look at layers of dirt in the sites. The dirt contains things left by humans, such as stone tools, bits of smashed pottery, and bones.



Big Earth Movers GLACIERS

Glaciers are huge flows of ice that move very slowly. They are so huge and powerful that they push earth and rocks ahead of them. They even push boulders the size of houses! When glaciers melt away they leave behind clues of their former presence. These are U-shaped valleys, massive piles of earth and rock, huge boulders strewn down valleys, and scratched and polished rocks.

Kid's Guide to Archaeologists' Helpers

Archaeologists need the help of many other scientists. They don't have the training to answer all their questions. These people help them answer those questions.

Plant and Animal Questions

Archaeologists want to know about the plants and animals that ancient people used. What kinds of plants did the people use for food? Were there other uses such as basketry or woven goods? What kinds of animals did people hunt? Did they prefer some animals for food? Did they kill both old and young animals? Did the ancient people use all of an animal or only parts of it?

- BOTANISTS study modern plants. They study seeds and other parts of recent plants.
- PALEOBOTANISTS study ancient plants. Often the plants do not grow in the area now. But they may still exist in other places.
- ZOOLOGISTS study modern animals. They study bones of animals that have been around for most of the recent time. Often they still exist.
- PALEONTOLOGISTS study ancient animals. Many of these animals are extinct. That means none of those animals are alive anymore.

Land Questions

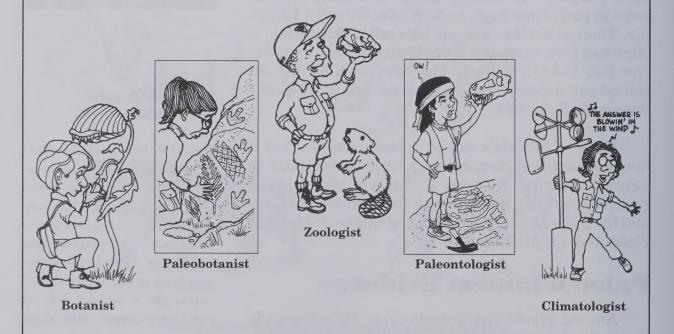
Archaeologists want to know about the landscape. They want to know what it looked like long ago when it was home to ancient people.

· GEOLOGISTS study the earth. They study how the earth formed and how it has changed over time.

Weather Questions

Archaeologists want to know about the climate or weather of past times. They want to know how it affected where people chose to live.

· CLIMATOLOGISTS study weather and climate. Climate means the weather that is typical for an area.



botanists try to figure what plants grew in Nevada in the past. They also try to discover where the plants grew. They try to figure out when the plants grew there.

Think about the kinds of plants you see. What grows in the countryside away from the city? If you live in southern Nevada, you see a lot of creosote. In the southern hills you see Joshua trees. Everywhere else in the state you see a lot of SAGEBRUSH. Piñon and juniper trees grow in the hills. Do you suppose the same plants grew here 10,000 or 20,000 years ago?

Each kind of plant has its own special kind of seed, leaf, and POLLEN (see page 3-8). These plant parts can last for thousands of years. Sometimes scientists find them. When they do, they compare them to the seeds, leaves, and pollen of modern plants. This is how they identify ancient plant remains. Their next task is to figure out how old the plant remains are. Scientists can date plant parts by special methods that measure the amount of carbon left in the plants.

Plants can help scientists understand what the ancient **climate**, or weather for the area, was like. First the scientists must identify the plant and then date it. Then they can make inferences about the climate. They try to figure out what it was like at the time the plant was growing.

Botanists know that each kind of plant needs certain things to survive. It should not be too hot or too cold for the plant. Each one needs certain amounts of water to survive. For example, suppose you find an old bristle-cone pine tree seed. It's in a place where no bristlecone pine trees grow now. A paleobotanist would infer that it once was cold and wet where the tree grew.

What if you found the seed of a greasewood plant at the same place? This means that the climate probably was warm and dry where the greasewood plant grew. But it could not have been cold and wet, and warm and dry in the same place, could it? Well, maybe it could have, but not at the same time. If the two seeds are carbon dated, do you suppose that one seed will turn out to be much older than the other?



Sagebrush grows in many places in Nevada.

Woodrat or Packrat



Time Capsules WOODRAT MIDDENS

Woodrats urinate or pee on their middens. We call the thick, syrupy urine of woodrats amberat. It glues the midden together as it dries. This helps preserve the midden. Some middens are thousands of years old. This means they are like time capsules. Paleobotanists look for the old middens. When they find these old middens, they dissolve the amberat in water. They separate all the plant and animal remains in the midden. Then they try to identify and date the remains.

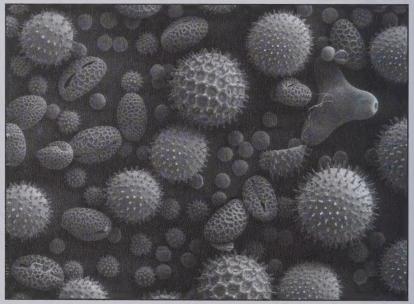
Another Helper—the Woodrat

One of the best places to look for plant clues is in old WOODRAT nests. Another name for woodrats is packrats. They eat parts of the plants they gather near their homes. Often, they build a **midden** or nest of uneaten plant parts. Scientists found a WOODRAT MIDDEN in the Goshute Mountains near Wendover, Nevada. It was more than 50,000 years old. They studied the plant parts preserved in this midden. This helped them figure out what kinds of plants were growing in the Goshute Mountains long ago.

Scientists like to find woodrat middens. The middens give them lots of information about plants in the area. They try to find several woodrat middens in the same area. They hope the packrats constructed them at different times. They identify and date plant parts from the middens. By doing this, they can see how whole communities of plants changed from one time to the next.

Trees Grow in Different Places

Scientists also find parts of trees that grew a long time ago. They even found out about trees that grew at



Archaeologists compare old plant pollen with modern pollen like this.

least 10,000 years ago. They discovered that some types of trees used to grow at lower ELEVATIONS. Today those kinds of trees grow only in the mountains. They do well there because it is cooler and wetter. Why do you think the trees used to grow at lower elevations? Those places must have been cooler and wetter than they are today.

Some trees like piñon pines grow in warmer places. Today we see PIÑON PINE trees in many places in Nevada. They did not grow here during the Pleistocene. They probably started growing here about 7,500 years ago. What does this tell you about the climate? If you said it must have gotten warmer you were right.

Paleontological Evidence

Paleontologists study ancient animals. They study their bones, teeth, and hair. They even study animal droppings! They compare old animal remains to modern animals. Then they can figure out what kind of animal they are looking at. They can figure how old the remains are. To do this they use the carbon dating method. It is the same one scientists use to date plants.

Many interesting animals used to live here. Pale-ontologists found a nearly complete skeleton in a cave near Las Vegas. It was a giant ground sloth. They found cheetah and bison bones in central Nevada. They also found the bones of camels, llamas, horses, and ground sloths. They discovered mammoth bones in the Black Rock Desert. You can see the skeleton of one of these mammoths. It is at the Nevada State Museum in Carson City.

You might wonder what the old bones look like. Sometimes they look a lot like the bones of modern animals. Usually there are some differences. For example, scientists find PLEISTOCENE BISON bones. Suppose they look similar to those of MODERN BISON. However, the Pleistocene bones are much larger. When this happens, it means the old bones belong to a different type of bison. (See page 3-9.)

Ups and Downs ELEVATION

Elevation is the height, or altitude, of any place on the earth. We measure it from sea level. Sea level is 0 feet in elevation. The lowest point in Southern Nevada is on the Colorado River. It is 470 feet above sea level. The highest point in Nevada is the top of Boundary Peak. It is 13,140 feet above sea level.



Piñon pine

Now You See Them, Now You Don't PIÑON & JOSHUA TREES

Piñon trees and Joshua trees are like many kinds of plants. They need very special conditions in order to live. Neither can take extreme cold. Piñons can stand cooler temperatures than Joshua trees can stand. Piñon trees grow from Mexico north into Nevada. They do not grow north of the Humboldt River. Joshua trees do well in southern Nevada. There is a forest that grows between Goldfield and Tonopah. It is the farthest north Joshua tree forest.



Pleistocene Bison



Modern Buffalo or Bison are smaller than Pleistocene Bison. What else is different?



Giant Ground Sloths used to live in Nevada.

Let's say we find two animal bones in the same place. One bone is from an extinct camel and one is from a rabbit. Can we infer, from these facts alone, that the camel bone is older than the rabbit bone? Well, we can, but we shouldn't. That is because rabbits lived in Nevada at the same time that camels did. We need to get carbon dates on both bones. That way we can find out if both animals were living in the same place at the same time.

Putting the Evidence Together

Let's put all these clues together. We think Nevada's climate has changed a great deal in the past 18,000 years. These climatic changes led to other big changes. One kind of change was in the types of plants that could live here. Some animals eat plants and then other animals eat them. When the plants changed the animals also changed. Humans eat both plants and animals. They had to change their lifestyle too.

18,000 Years Ago It Was Cold!

If you had lived in Nevada about 18,000 years ago you would have been very chilly. The climate was cooler. Glaciers covered much of North America. MAMMOTHS, CAMELS, and HORSES lived here. Short-faced bears and GROUND SLOTHS all lived in Nevada. Many kinds of animals we see today lived here as well. There must have been a lot of grass around to feed them all. We know they had plenty of water. Nevada had many lakes in the Pleistocene. Limber pine trees and bristle-cone pine trees were very common. They grew at lower elevations. Today they grow only higher up. That means the climate used to be wetter.

10,000 Years Ago It Was Warming Up

After all that cold weather, a long warming trend began. It became hot and dry. Some kinds of trees no longer could live down low near the valleys. By about 10,000 years ago, most of the really big Pleistocene animals were gone. They had become extinct. Most of Nevada's lakes dried up. They left only playas behind. Northern Nevada was much warmer and drier at this time. Southern Nevada was probably warmer and wetter.

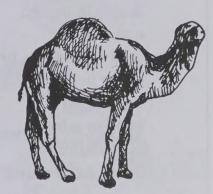
Around 7,500 years ago, Nevada was very hot and very dry. About this time, piñon pine trees showed up. They like the hotter and drier weather. Then, about 4,000 years ago, the climate became wetter again! Lakes and marshes formed, but not for long. About 2,000 years ago there was another change. Nevada once again warmed up and dried out! We are still in that hot dry climate.

Scientists are certain of this—things always change. Our climate has changed many times in the past. The plants and animals changed in response to climatic change. We find clues about these changes preserved in the landscape. We find other clues in old plant and animal remains.

How do you suppose people living in the old times changed?



Mammoth



Camel. Mammoths and camels lived in Nevada during the Ice Age.



Horses were in the Americas during the Ice Age. Then they disappeared. The Spaniards brought modern horses to the Americas.

Pronunciation Guide

a as a in cash
A as a in place
ah as o in shop
au as ou in out
ch as ch in chicken
& as e in mitten
e as e in pet
E as ee and y in breezy
g as g in go
i as i in pit
I as i in mice
j as j in jump
ng as ng in swing

O as o in so
o as aw in paw
oi as oy in boy
oo as oo in hoot
sh as sh in shut
th as th in thick
th as th in the
uh as u in butter
ur as ur and er in murder
u as oo in book
y as y in yet
zh as si in vision

WORD LIST

- **climate** [**klI**-muht] the conditions of weather that are typical for an area; climatology is the study of weather and climate.
- evidence [ev-uh-duhn(t)s] facts or clues that help someone make a conclusion.
- extinct [ik-sti(ng)(k)t] something which no longer exists in living form.
- inference [in-fur-uhn(t)s] a conclusion based on facts.
- midden [mid-&n] a pile of trash.
- playa [plI-uh] a flat, dried out lake bed.

Hunting and Gathering

The next time you visit the Great Basin, take a good look around. It may seem too dry and hot for people to live there. Today we have air conditioning. But what about people of the past? Did they live there? People did live in the Great Basin during prehistoric times. They did it by moving around from place to place. They gathered plants and hunted animals. Scientists call this the hunter-gatherer lifestyle. HUNTER-GATHERERS lived in Nevada for about 12,000 years, until the late 1800s.

How do archaeologists know this? They find evidence of the earliest hunter-gatherers. The people lived along the edges of former lakes, called playas, and marshes. Usually they find very large stone tools and smaller stone flakes. The people left the tools and flakes when they finished making their stone tools. Near some of the sites, they discovered the bones of animals. Some of the animals are **extinct**, or no longer found alive. For example, they found woolly mammoth skeletons in the Black Rock Desert. It is north of Reno. They find lots of early human sites there also.

You would think really old sites would be buried. But in Nevada they aren't. The scientists find almost all of the oldest archaeological sites on the surface of the ground. They seldom find early artifacts buried deep beneath the surface.

Archaeologists find many different kinds of sites left by later hunter-gatherers. They find sites in caves and rock shelters, for example. In deer and mountain sheep country they find hunting blinds. These are places where the people hid to keep the animals from seeing them. On the banks of streams they discover small village sites. They find small **toolstone** sources. These are



Hunter-gatherers tied things together because they did not have things like nuts, bolts, and nails to use as fasteners.

Seeing BELOW THE SURFACE

How does an archaeologist find a site that is buried beneath the ground? What if there are no clues on the surface? They know that they often find archaeological sites in certain kinds of places. These are places that people often used. These might be rock shelters or places where two streams flow together. They might be places on high ground that overlook an animal trail or a spring. Sometimes they locate such a place and find no clues on the ground surface. Then they may dig small test pits. These test pits are like windows into the past. The dirt from the pits may contain clues that show people had used the spot. And, they might not contain anything interesting. Sometimes archaeologists use special equipment to "see" beneath the surface. Such equipment works something like an X-ray machine.

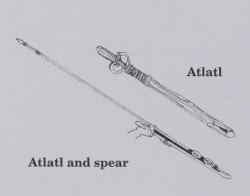
places where rock pushes up from the ground surface. The people got stone from which to make tools at these spots.

To learn about hunters and gatherers, scientists have to study all different kinds of sites. Scientists find the sites in two places. One is on the ground's surface. The other place is BELOW THE SURFACE. Sometimes they find clues in both places.

Hunting And Gathering

Nevada's very earliest people appeared here at the end of the PLEISTOCENE. This means it was at the end of the Ice Age. Really big animals roamed the land. We don't know much about these people. They hunted mammoths and other big game with SPEARS AND ATLATLS. However, they apparently moved around a lot over large areas.

There weren't many people living in the Great Basin at the time. They may not have had lots of neighbors. But they probably didn't compete much with other people for scarce supplies. We believe they did not rely on plant foods. We have found and studied only a few late Pleistocene sites.





Pleistocene people used atlatls to throw their spears.

When the Pleistocene ended, many large animals became extinct. The people had to change their ways because of new conditions. They began to use different kinds of **resources**, or supplies, from nature. They no longer hunted mammoth and bison. Now they hunted BIGHORN SHEEP, DEER, and pronghorn. They also hunted smaller animals. They began to use more plant foods than before.

Hunter-gatherers paid close attention to changing conditions in the **landscape**, or countryside. They watched plants ripen and animals fatten. They learned which ones were best to harvest in each season of the year. They learned when to move from valley floor to the mountains. They learned where to find drinkable water or good toolstone. They knew where to find a big stand of arrowcane plants for making arrow shafts. They moved to a different area when the season changed. Oftentimes they returned to the same place year after year. They followed what we call a **seasonal round**. It went something like this.

Spring

People were hungry by the time spring came around. They would have eaten all their stored food over the winter. As soon as spring came, they searched out young plants that were good to eat such as biscuitroot, bitterroot, and wild onion. Spring was the fish-spawning season, and so they FISHED and ate their fill. They dried the extra fish for later. They captured DUCKS (see page 4-4) by stretching nets across streams.

As people moved from one place to another, they checked for signs of future harvests. For example, they might travel through piñon groves on their way to FISH (see page 4-4) a mountain stream. On the way they would check how the young pinecones were coming along in each grove. In this way, they could judge how good the fall pine nut harvest might be in that grove. And they checked out every other piñon grove they passed through all summer long. Then, at summer's end, they could decide where to go to find the most pine nuts.

Brrr! It's the PLEISTOCENE

Scientists divide up the time of the earth. For the past 10,000 years we have lived in the Holocene time. Before that glaciers, or huge masses of ice covered the earth. They call that time period the Pleistocene.



Mule deer



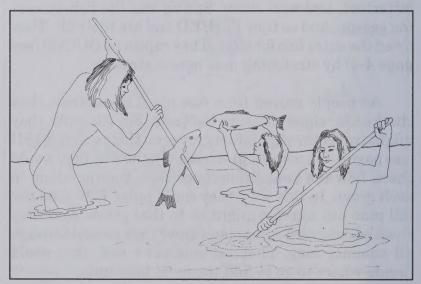
Mountain sheep



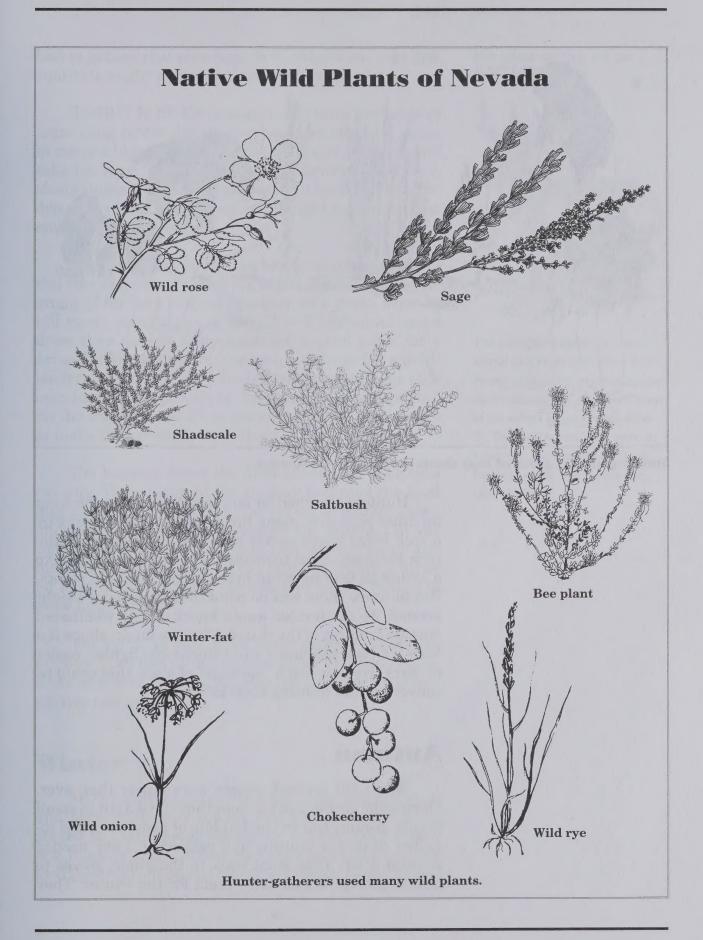
Hunter-gatherers stretched nets across streams to capture ducks.

Summer

As spring changed to summer, seeds, berries, and fruits began to ripen. Indian ricegrass, wild rye, wild currant, and chokecherry were good to eat. So were the tasty shoots of CATTAILS (see page 4-6). PLANTS ripened first in lower places. They ripened later in higher places. The people moved higher as the plants ripened to harvest them. At the same time, they were always on the lookout for small animals to trap or net. They even gathered and ate insects and young insects called larvae.



Hunter-gatherers captured fish with spears.





Hunter-gatherers gathered tasty shoots of cattails in the summer.

Hunters searched for larger game, always checking for other resources along the way. A hunter passing by a rock ledge would surely stop and check to see if the rock promised good toolstone. If it did, he might take a chunk so that he could make extra projectile points. But he knew there was no point in lugging dead weight around. So the hunter would knock off the weathered outside surfaces of the chunk. Then he might shape it a little bit. Now the chunk was thinner and lighter, easier to carry. He now had a "package" of stone that could be converted into hunting tools later on.

Autumn

When fall arrived, people were busier than ever. During the spring and summer they spread out in small family groups. But in the fall lots of people worked together to do fall hunting and gathering. They needed to hunt a lot. They went back to the piñon groves to gather pine nuts and store them for the winter. They

had to gather ripe pine nuts fast. Otherwise, jays and squirrels might make short work of the crop!

RABBIT BOSSES (see page 4-8) were in charge of organizing rabbit drives. It takes a lot of rabbit skins to make a blanket. Catching them one at a time would take too long. The idea of a rabbit drive was to catch many animals at once. They also organized ANTELOPE drives. A rabbit or antelope drive might depend on dozens of people for success.

Since antelope roamed in herds, people had a special way of hunting them. We call it a game drive. The group of hunters worked together on a game drive to kill many pronghorns at once. For a successful game drive they needed a big herd and a good place for a drive. Very importantly, the group also needed a drive leader. They called the drive leader a shaman. The shaman had special powers to "capture antelope's spirits." So the shaman waited in the corral to use the powers to make the antelope come there.

The hunters drove the animals along a V-shaped runway. They designed the runway to funnel the herd into a corral. They built the corral out of stones, poles, and brush. The hunters trapped the animals in the corral and killed them. They divided the meat and hide among themselves. They left this location alone for several years to give the antelope herd a chance to grow large again.

On top of all this, folks made storage containers for food. They had to cure animal skins they had gotten. Busy as it was, though, fall was the time for visits and parties and games.

Winter

All too soon the people finished their autumn work and play. Then they settled into winter camps. They stayed in their camps almost all winter. They took a few hunting trips. Sometimes they went out to fetch food they had left stored elsewhere. Most winter camps

For good eating, try an ANTELOPE



The pronghorn antelope is an animal that looks a lot like a deer. Pronghorns gather in herds in open country. Today you might see them in the valleys around present-day Ely, Elko, and Austin. They were an important food source for many Nevada people. The people also used the hides.

Rabbit Boss

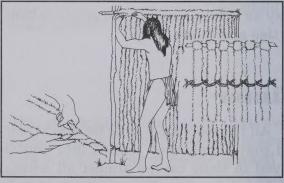
The Washoe people depended on rabbits and hares for meat and hides. In good years the valleys were full of rabbits they could hunt. The people then chose someone to be the rabbit boss. The rabbit boss' job was to organize a rabbit drive. First, he called on all the families to provide rabbit nets. Next the families wove the nets together. Once they had the net done, the rabbit boss had them place the huge net at one end of a big flat place. Many people, standing a few feet apart, held the net in place. The rabbit boss had many more people get into a wide semicircle at the other end of the valley. Then the line of people moved forward across the flat scaring the rabbits. They drove rabbits by the thousands into the net. The people killed rabbits and divided them up among all the members of the rabbit drive. They skinned the dead rabbits right away and cooked much of the meat for a great feast. They dried the remainder for winter meals. They cut the hides into strips that Washoe men wove into warm, rabbit skin blankets.











Rabbit skin robe

Weaving rabbit skins

were at lower places, along streams or near springs. Hot springs were favorite spots for winter camps.

Now they had spare time to make the things that they would need sooner or later. They might make stone and bone tools, duck decoys, or fishing gear. They wove huge rabbit drive nets. They made cradleboards for carrying babies. They made clothing and baskets. They wove rabbit skin blankets, **tule** or reed boats, and sagebrush shoes. They made beads and ornaments to decorate themselves and their handiwork.

Shelter

Hunter-gatherers of Nevada didn't build lasting houses. Why do you suppose this was? They moved around too much. Instead they used or built shelters wherever they camped. In open country, they might build windbreaks or lean-tos. They made these of BRUSH, willow, tule, or cattail. They favored pine bough and BARK SHELTERS in wooded country. They used pit houses for more protection in winter. They usually dug these round rooms into the ground and covered it over with a roof. In the northern Great Basin, the people used skin tipis.

Hunter-gatherers had no horses to haul their belongings from one place to another. So, the people had to carry only the most basic things with them. When they left a camp, they stored less important items. They would use them when they returned to that place. They dug pits into the ground and lined them with bark or grass. Then they stored the items in the pits. Sometimes they used caves, rock shelters, or rock crevices for keeping things safe. They had to think carefully about what to take along and what to leave behind. If they made the wrong decision about which tools to take they could go hungry.

About 300 years ago the Spanish brought the horse to the Americas. Horses need plenty of grass to eat. Some people lived in grassy areas. The arrival of the horse changed their lifestyle. Now they could carry more things with them. Now they could use large skin tipis because they had horses to carry them.



Bark Shelters



Brush Shelter



Hunter-gatherers used baskets to carry things, sift things, and to beat seeds out of grasses.

Social Life

The focus of each day in the life of prehistoric people was on food. They had to find it, capture it, prepare it, eat it, and store it. Men and women divided up the work, with each sex having different chores.

Women did most of the gathering work. They dug roots and gathered other plant foods. They captured small mammals and gathered insects. Women did most of the housekeeping work. They prepared food to eat now and later. They made BASKETS and clothing, and in some places they manufactured pottery.

Men made stone tools and hunted big mammals. They wove rabbit skin robes and built shelters. They helped older children gather fuel for the fire and carry water. They gathered materials for pottery and basket making.

Why do you suppose they divided the work up in this way? Today, men and women do the same kinds of work, both at home and at their jobs. It hasn't always been that way. Hunter-gatherer men and women had specific jobs.

Human babies cannot care for themselves. They cannot walk long distances so they must be carried everywhere. They demand constant care in their first years. Human babies depend on their mothers for food, love, attention, and transportation. Hunter-gatherer mothers could care for their babies at the same time that they gather food. But could they provide childcare and hunt at the same time? Not likely.

A hunter often must travel long distances before making a kill. Then the hunter must return to camp with as much meat as he can carry. To hunt while feeding and carrying a child would not be easy. It works better to divide the labor. The women stay near camp and gather small packages of food like plants and small animals. The men travel farther from camp. They return with big packages of food such as large animals.

The Pine Nut Harvest

Native people have used pine nuts for more than 7,000 years. No one owned the piñon forests. However, each family had the picking rights to particular groves. For three or four weeks in the fall, families were busy harvesting and storing the nuts. Men used a long, hooked pole to knock the pinecones from the trees. Women and older children gathered the cones. Then they spread the cones out to dry in the sun or heated them in fires. The dry cones then opened and released their nuts.

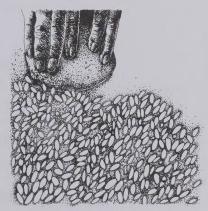
In good years, when cones were plentiful, a family of four might harvest more than a thousand pounds of nuts. This was enough to last them over the winter. Of course it was far too much to carry to the winter camp. So, they stored much of the harvest in pits in the grove. They fetched nuts as needed throughout the winter. In camp, they lightly crushed the pine nuts, just enough to crack and loosen the shells. Once they had shelled the nuts, people ate some of the nuts whole. But, they ground most of the nuts into flour. They mixed the flour with water and stone-boiled it in a basket for soup. They added a little dried fish or rabbit meat, some flavor with a few juniper berries and a little salt, and they had a tasty meal!



Families gathered nuts



They mixed pine nut flour with water to make a tasty soup.



They ground nuts into flour.

Summary

Hunter-gatherers lived as a part of a small family group most of the year. Several families often set up their camps close together during the winter. In the spring, each family set off on its own seasonal round. During the summer they hunted and gathered food. In the autumn many families gathered to visit, play games, and have a good time. The most important thing of all in the autumn was getting food. They had to store extra food for the coming winter. They worked together in large groups on rabbit and antelope drives. They helped each other gather pine nuts. This helped them store larger amounts of food for the long winter.

Pronunciation Guide

a as a in cash
A as a in place
ah as o in shop
au as ou in out
ch as ch in chicken
& as e in mitten
e as e in pet
E as ee and y in breezy
g as g in go
i as i in pit
I as i in mice

O as o in so
o as aw in paw
oi as oy in boy
oo as oo in hoot
sh as sh in shut
th as th in thick
th as th in the
uh as u in butter
ur as ur and er in murder
u as oo in book
y as y in yet
zh as si in vision

WORD LIST

j as j in jump

ng as ng in swing

- extinct [ik-sti(ng)(k)t] something which no longer exists.
- hunter-gatherer [huhn-tur-gath-ur-ur] person who moves from place to place searching for food.
- landscape [land-skAp] a stretch of land that is viewed.
- **resource** [**rE**-so(uh)rs] a supply of something important which people can use.
- seasonal round [sEz-uhn-uhl raund] the yearly pattern of moving from place to place in search of food.
- **toolstone** [**tool**-stOn] a rock suitable for making flaked stone tools.
- **tule** [too-lE] a tall reed that grows in marshes. People used it for boats and other items.



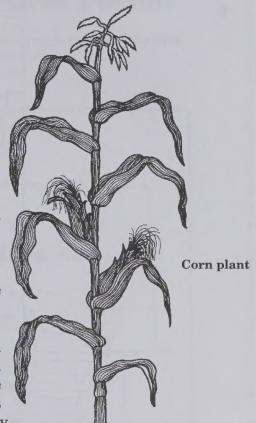
Early Farmers

Let us take a look at TWO GROUPS of people in Nevada's prehistory (see page 5-3). Most people hunted and gathered their food. They searched for a wide variety of plants and animals. They depended on these plants and animals in order to live. We call this the Archaic lifestyle. Two groups were different. They began to farm. We call this the agricultural or farming lifestyle. We call one of these groups the Ancestral Pueblo people. We call the other group the Fremont people.

ANCESTRAL PUEBLO people lived east and northeast of present-day Las Vegas. They settled along the Muddy and Virgin rivers. They lived there more than two thousand years ago. About 1900 years ago they began to grow corn. As time passed they came to depend on farming. They still hunted animals and gathered wild plants. They stayed in southern Nevada until eight hundred years ago. Then they left the area.

The Fremont people lived in eastern Nevada. This area is near the center of the Great Basin. They built villages about sixteen hundred years ago. They were farmers. However, they also hunted and gathered a lot of their food. Fremont communities flourished for nine hundred years. Then they too left the area.

Archaeologists have learned a great deal about these two groups of people. They have looked at places where the people lived. They have examined the things the people left behind. They find village and campsites in several states. These are Arizona, Utah, Colorado, New Mexico, and Nevada. We'll look at two sites in Nevada. One is located near Overton. The other one is near Baker.



What's In A Name? ANCESTRAL PUEBLO

We don't know what language the first farmers in Nevada spoke. We don't know what they called their friends or their families. We do not even know what they called themselves. Archaeologists used to call these people "Anasazi." Modern Pueblo people don't like that word. They say it is because it is a Navajo word that means ancient enemy. It also can mean ancient ones. Navajos are another group of Indians. They live in the same area as modern Pueblo Indians. The Pueblos ask that we use another word. Now we use "Ancestral Pueblo," "Puebloan," or "Pueblo," for the ancient Pueblo people.



Ancestral Pueblo people grew corn.

Ancestral Pueblo People

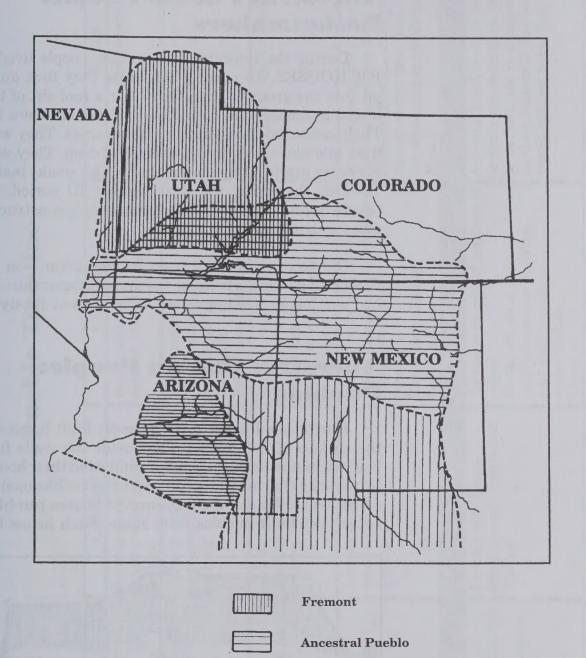
The ANCESTRAL PUEBLO people lived in the deserts and canyons of the area. **Ancestors** are related people who lived long ago. We think these people are ancestors to all the modern **Pueblo** people. These modern people live in Arizona and New Mexico.

One group lived in southern Nevada and Utah. They also lived in northwestern Arizona. We call them the Virgin River people. We believe they were the ancestors of the Hopi and other Pueblo people.

Archaeologists wanted to find an easier way to study these people. So they got together and looked at what they knew about these people. They divided them into groups called cultural periods. They named the periods for things the people used. They called the first three "Basketmaker." This is because the people made a lot of baskets. They called the next three periods "Pueblo." This is because the people lived in stone houses and vil-

The Fremont and Ancestral Pueblo

The Fremont and Ancestral Pueblo were two groups of early farmers who lived in the Southwestern United States.



Mogollon

Hohokam

lages. These villages look like modern Pueblo villages. Pueblo is the Spanish word for town.

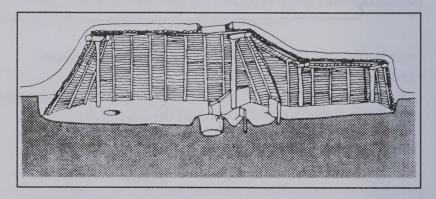
Ancestral Pueblo People: Basketmakers

During the Basketmaker periods, people lived in PIT HOUSES. To make a pit house they first dug a pit into the ground. Then they built a roof out of tree limbs, branches, and dirt. These pit houses were big. They measured nine to twenty feet across. They were from one and one-half feet to six feet deep. They were very cozy inside. They were probably also smoky inside. Towards the end of the Basketmaker III period, the people begin to make pottery. It was simply constructed and rarely painted.

Did you notice there is no Basketmaker I on the TIMELINE? This is because the archaeologists already had a name for it. They called it the Archaic lifestyle.

Ancestral Pueblo People: Pueblos

During the Pueblo periods people built houses on the surface of the ground. They made the walls from long sticks and dried mud. They connected their houses together by sharing walls. They were sort of like modern apartments. We call these connected houses **pueblos**. Later they built pueblos from stone. Each house had



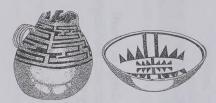
Basketmaker pit house (cross-section view).

Pueblo Timeline

PERIOD	LIFESTYLE	FEATURES	NOTES
Basketmaker II 300 BC-AD 400	Hunting and gathering Possibly experimental farming	Basket making Atlatl & spear hunting	Little evidence of Basketmaker II in Nevada
Basketmaker III AD 400-800	Hunting and gathering, with greater dependence on farming	Basket making Pottery making Sandal making Pit houses Bow & arrow hunting	Very large "Great Kivas" appear in other places
Pueblo I AD 800-1000	Corn farming Hunting Trading	Large & small stick and mud pueblos with pit houses Basket making Fine pottery with painted decoration	"Great Kivas" appear in other places
Pueblo II AD 1000-1150	Farming corn, beans, squash, gourds, and cotton Trading	Large pueblos with central plazas in some places; others are only small villages Weaving Fine pottery making Basket making	Small kivas appear in other places No kivas have been found in Nevada Ancestral Pueblo culture peaks in Nevada at this time; then villages are abandoned and Puebloans leave Nevada
	Ancestr	al Puebloans Leave Nevada	
Pueblo III AD 1150-1220/1225 (Does not appear in Nevada)	Farming corn, beans, squash, gourds, and cotton Trading	Very large pueblos of hundreds of people Kivas, both large & small Other community buildings Fine pottery making Basket making Weaving	Ancestral Pueblo culture continues to thrive elsewhere in the Southwest, gives rise to the Hopi culture in northern Arizona & New Mexican Pueblo cultures to the East

A Time Marker POTTERY

Archaeologists study the designs on Pueblo pottery. The designs help them figure out how old the pots are. Some designs were popular in very early Pueblo times. Others were popular hundreds of years later. Sometimes archaeologists don't have an exact date for a site. However, other sites that are nearby have good dates. In that case they can try to match the pottery designs. If the designs match they can say that the sites date from about the same time.



This bowl and water jug with black painted decorations are examples of Pueblo pottery.

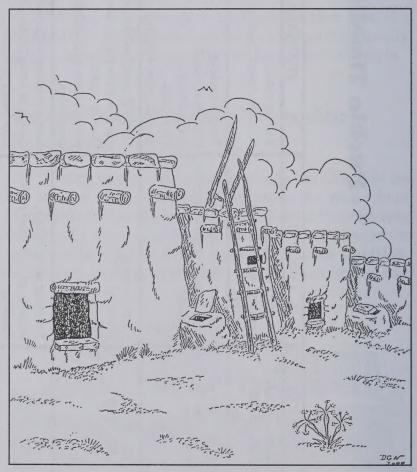
A Survival Strategy STORING FOOD

Archaeologists usually search for storage areas. Storage areas give them a lot of clues about the site. Archaeologists count and measure storage spaces. This helps them figure out how many people lived in the pueblo. Stored food helps them understand what people ate. Pueblo people lined the floors of their storage structures with stone and clay. This helped keep rodents out of the stored food.

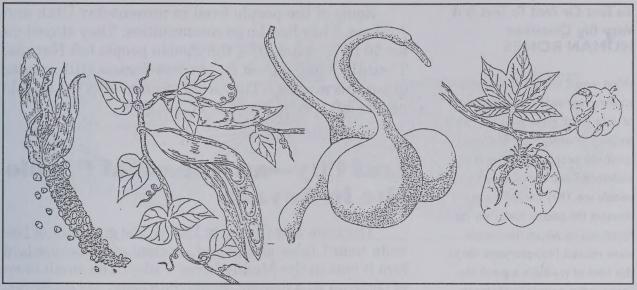
several rooms. They arranged the houses around central **plazas** or open spaces. This style was common from 1000 years ago to 850 years ago.

By Pueblo II times, Puebloan people made very fine POTTERY. Sometimes they decorated white bowls with black paint. They made the paint from ground-up plants or minerals. Pueblo people left some jars plain. They carried and stored water in these plain jars. They used others with rough textured surfaces for cooking. Some potters made red pottery decorated with black paint.

Some larger PUEBLOS contained more than 100 rooms. People cooked and slept in some of the rooms. They used many more for STORING FOOD. Lots of social activities took place in the plaza. Here, people wove cloth and ground corn in the company of their friends and relatives.



A pueblo with a plaza in front. Note the storage bins at the corners of two of the rooms.



Corn, beans, squash, and cotton were grown in gardens.

Most Pueblo period villages have an unusual room. We call it a **KIVA**. So far, scientists have found no kivas in Nevada. It is a mystery to solve.

The Pueblo people grew large GARDENS. Corn was the main food crop. They also grew beans and squash, as well as gourds and cotton. Archaeologists know this because they sometimes find ancient plant parts buried in sites. Sites are places where people did something.

They also study the diets of people in other ways. They may ask other scientists to perform tests on HUMAN BONES (see page 5-8). The tests can show the kinds of plants the people ate. However, many Native Americans do not want people to study the bones. Scientists consider the people's wishes when they think about studying bones.

The Ancestral Pueblo people left their villages about 850 years ago. They never returned to Nevada. What might have caused them to leave? They had farmed the same soils for many years. Perhaps the soil got worn out and could no longer produce good crops. This was especially bad because their population was growing. Maybe a change in climate brought on years of drought. Finally, other people moving into the area might have competed for the wild foods. The Pueblo people needed the wild foods to add to the crops they grew and ate.

The Mystery of the Missing KIVAS

Most Pueblo period villages have an unusual room. It is usually a round room dug into the ground. Archaeologists noticed these rooms looked like rooms in modern Pueblos. They decided to use a modern Hopi word for them. They called the rooms kivas. The modern rooms are special places. Pueblo people hold sacred observances and services in them. They are like a small church, temple, mosque, or synagogue. Archaeologists think the ancient people used kivas for more than one thing. They found clues that the people used them for sacred events. They also found clues that the people used kivas for everyday activities. For instance they found partly made tools in one in Colorado.

Why do you suppose there are no kivas in Nevada?

To Test Or Not To Test Is A Very Big Question HUMAN BONES

What would you think if some stranger wanted to test the bones of your great, great, great grandparents? Scientists can find out a lot about people by testing their skeletons. They can often tell what people ate. They can tell what diseases the people had. They can figure out to whom the people were related. Not everyone thinks this kind of testing is a good idea. Some native people hold strong beliefs about it. They think that no one should bother their ancestors' bones. This is true even though the skeletons are thousands of years old. Archaeologists must consider what these people think before they decide to test human bones.

Some of the people lived in present-day Utah and Arizona. They had large communities. They stayed on for 50 to 75 years after the Pueblo people left Nevada. Then they too, moved on. Archaeologists still wonder about this mystery. They want to know why the Pueblo people left the region.

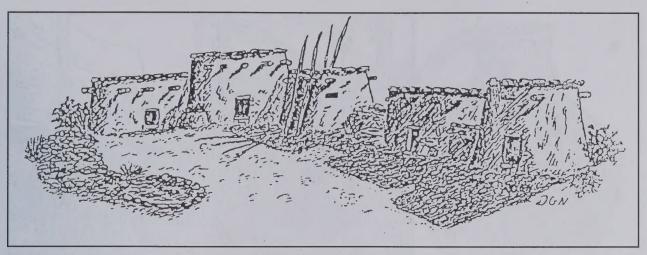
Lost City—an Ancestral Pueblo site in Nevada

The time was the early 1920s. The governor of Nevada heard tales of a grand, ancient city. People told him it was in the Muddy River Valley. The small town of Overton was nearby. It was northeast of Las Vegas. The governor asked an archaeologist named Mark R. Harrington to look at the site. He worked for the Museum of the American Indian in New York. He studied the houses and pottery. They were similar to those found in Arizona and New Mexico. He then identified the site as Puebloan.

Teams of archaeologists searched the Muddy River Valley. They were looking for more sites. They discovered hundreds of ancient houses. They excavated many of the sites they found. The newspapers reported these events. They began to call the sites the Lost City. The name stuck.

What do the archaeological clues found at Lost City tell us? First, they tell us that Harrington was right. The people who lived there were Ancestral Pueblo. They lived there for about 1000 years.

Artifacts give us many clues. The people had shell beads and ornaments. These things did not come from Nevada. Scientists think the people of Lost City must have traded for these things. We find these types of shells on the California coast. People from the coast probably traded the shells. Red pottery found its way to Lost City. It was made by people in Southeastern Utah. So did pottery from Arizona. Archaeologists know that this pottery came from the east by examining it. It was made from clay and other minerals found in those places.



Artist's drawing of a reconstructed Pueblo.

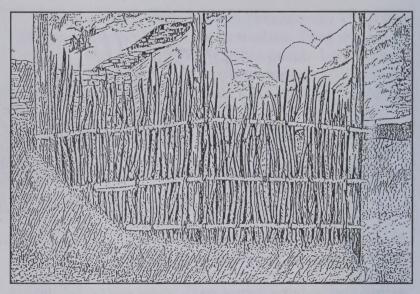
We still find Lost City sites. They are in the hills of the Muddy River Valley. However, they are disappearing fast. This is because modern people are developing the valley. Also, Lake Mead flooded many Ancestral Pueblo sites. They now lie beneath the lake.

You can visit Lost City Museum in Overton, Nevada. There you can see all sorts of interesting things. The museum has RECONSTRUCTED PUEBLO houses. They help you see what those houses really looked like. You can view the fine pottery. You will see many other artifacts in displays. It was built where archaeologists dug a Lost City site.

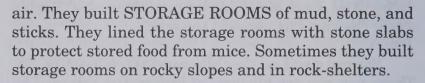
Fremont People

Archaeologists find traces of the Fremont culture. They find sites in many valleys of the Great Basin. The Fremont lived in the area that is now Utah and eastern Nevada. They began living there 1600 years ago. They left 700 years ago. They were the northern neighbors of the Ancestral Puebloans. At times they might have traded goods and ideas with their neighbors.

The Fremont often lived in small villages. Fremont villages were clusters of pit houses. The houses were very similar to early Basketmaker pit houses. The Fremont constructed fire hearths inside these houses. They dug shafts or tunnels into the pit houses to bring fresh

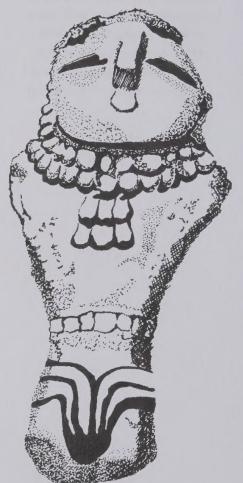


The Fremont built storage rooms of mud and sticks. This one is under construction.

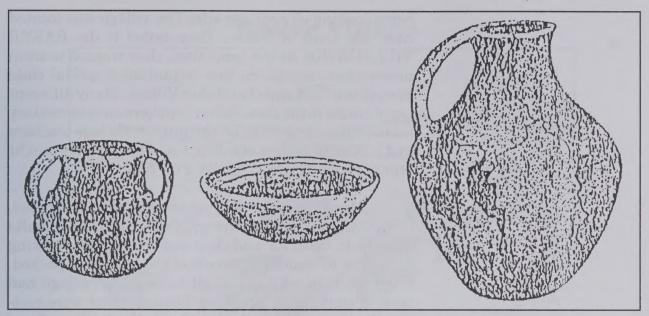


The Fremont people were farmers. They planted a particular type of corn called Fremont dent corn. It grew well in the short summers of the Great Basin. The Fremont depended on this important food. They also depended on the wild foods they found in valley wetlands and in the mountains. In the uplands, they hunted and gathered pine nuts. When they did this they found shelter in the many caves located in eastern Nevada. They also fished and hunted birds and mammals. These animals lived in and around the marshes, rivers, and lakes.

They put small ARROW POINTS on the tips of the arrows. These points were lightweight and finely made. FREMONT POTTERY was sturdy and gray colored. They shaped it into bowls, mugs, and jars. Sometimes they decorated their pots using black paints to make designs. The Fremont also made small clay FIGURINES. These are small statues or figures with individual faces. The figurines wear decorative necklaces. Archaeologists are not certain how the Fremont people used the



The Fremont people made clay figurines.



The Fremont people made sturdy gray pottery.

figurines. Sometimes they find the figurines in storage rooms along with ancient corn. What do you think this might mean?

Archaeologists think it means that the figurines were special, sacred objects. Perhaps the Fremont used them to protect their stored food. The Fremont also created a lot of **rock art**. Rock art is a design carved or painted on rock. There are human-like designs in Fremont rock art. The designs look very much like the clay figurines.

The Fremont made their clothing from the skins of animals. Sometimes they cut rabbit skins into thin strips. They twisted the strips into long strands and wove them into robes. They had a special type of moccasin that was made from the skin taken from the leg of a deer. Such "hock moccasins" were popular with the Fremont.



Fremont arrow points were small and well-made.

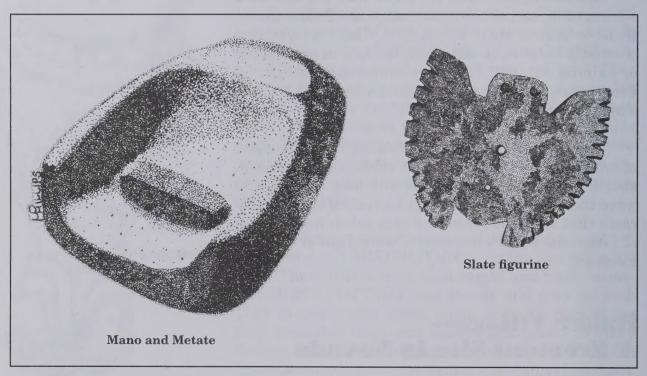
Baker Village— A Fremont Site in Nevada

The year was 1991. Archaeologists wanted to learn more about the Fremont people. They decided to

begin looking at a village site. The village was located near the town of Baker. They called it the BAKER VILLAGE site. At the same time, they wanted to train new archaeologists. So they organized a special class known as a field school at Baker Village. Many different people came to the class. Schoolteachers and elementary school students worked on the project. College teachers and students helped out. They all learned and taught others about THINGS THEY FOUND.

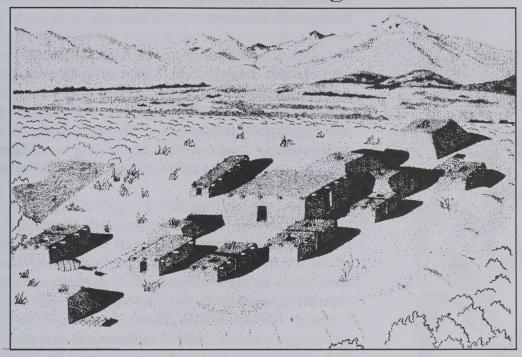
Members of the field school dug eight pit houses. Most of the pit houses were square. They had airshafts to draw in fresh air and clear out smoke from cooking fires. The Fremont built most of the houses of packed, dried mud. In addition to pit houses, the village had several storage rooms. These ancient areas were rectangular, two-room buildings. Scientific dating tells us that people lived at Baker Village for over two centuries. They lived there from 830 to 650 years ago.

Archaeologists wanted to know more about the plan of the Fremont village. It seemed that the people had arranged the houses in a particular pattern. The



Baker Village students found interesting things. They found manos and metates. They also found a slate figurine. What do you think it is supposed to be?

Baker Village



Artist's drawing of Baker Village with a large house in the center. It started as a pit house. Two-room storage rooms are around it. Pit houses are at both ends of the village.

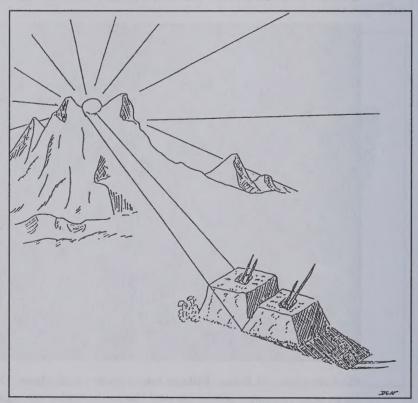


Modern photo of Baker Village taken from an airplane. The white lines show the large square center pit house and the rectangular storage rooms. The dark lines show the edges of the places the archaeologists dug.

scientists wanted to know why. They knew other cultures track the sun from season to season. They decided to find out if the Fremont did too.

The scientists noted the direction that the structures faced. They watched the rising sun. They figured out the place from which someone would see the rising sun if he or she was standing near those buildings. They concluded that the people of Baker Village built their structures to line up with the rising sun. The people tracked the seasons by watching the sun rise and line up with the buildings.

For people who track the sun, there are several very important days each year. One is in the winter, when the sun rises and sets the farthest to the south. Another is in the summer, when the sun rises and sets the farthest to the north. We call these the winter and summer **SOLSTICES**. The spring and the fall each have a special day called **equinox**. It occurs when the sun rises and sets exactly in the middle between the most northern and most southern places.

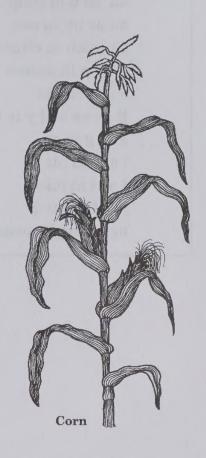


At the Baker Village site, the Fremont built pit houses to line up with the rising sun at solstices.

The people built a LARGE HOUSE (see page 5-13) at the center of their village. It began as a pit house. Later it was above ground. They arranged other buildings around it. Scientists think the villagers made their buildings line up with the center of the pit house and the rising sun. This line-up happened at both solstices. The people even lined up some other houses. These showed the position of the sun rising two, three, and four months before the Winter Solstice. They built one of the houses so that the house was in a line with the sunrise and a nearby mountain peak.

Do you wonder why the Fremont people built their houses this way? Remember that farmers around the world pay attention to the changing seasons of the year. They must know when to plant and when to harvest. In many cultures people hold sacred events to make sure the crops will grow. They may say prayers for the rains to come. Perhaps the Fremont people wanted to know when to conduct their sacred events so they would have a good CORN crop.

Other archaeologists wondered if Baker Village was the only place arranged this way. What about other Fremont villages? Were they like Baker Village? Did the people observe the rising sun from those places? Did they arrange their houses according to the sun's position at the solstices? The scientists studied other Fremont villages. At some of them the people had arranged their houses according to the sun's position. They were like Baker Village.



Pronunciation Guide

a as a in cash
A as a in place
ah as o in shop
au as ou in out
ch as ch in chicken
& as e in mitten
e as e in pet
E as ee and y in breezy
g as g in go
i as i in pit
I as i in mice
j as j in jump
ng as ng in swing

O as o in so
o as aw in paw
oi as oy in boy
oo as oo in hoot
sh as sh in shut
th as th in thick
th as th in the
uh as u in butter
ur as ur and er in murder
u as oo in book
y as y in yet
zh as si in vision

WORD LIST

- **ancestor** [**an**-ses-tur] a person or group to whom one is related.
- equinox [E-kwuh-nahx] one of two days in the year when the sun rises and sets exactly in the middle between the most northern and most southern places.
- figurine [fig-yu-rEn] a small statue or figure, made from clay, glass or stone.
- **kiva** [**kE**-vuh)] an underground room used for ceremonial purposes, by modern Pueblo people and by Ancestral Pueblo people.
- plaza [plahz-uh] a central open space for public use; a town square.
- **pueblo** [**pweb**-lO] a many-roomed structure built above ground, sometimes with more than one story (but Pueblo with a capital P refers to the people who construct and live in pueblos in the American Southwest).

- rock art [rahk ahrt] a design carved or painted on rock.
- solstice [sOl-stis] one of two days in the year when the sun rises and sets the farthest to the south or to the north.

Toolkit Technology

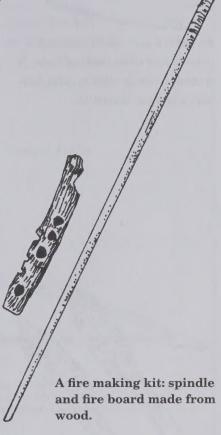
If you suddenly found yourself alone in the mountains or deserts of Nevada, could you survive? How would you manage to capture food, make shelter and clothing? What tools would you need?

Prehistoric people survived because they knew when and where food could be found. They knew what kinds of tools they would need to get that food, and they knew how to make them. They passed their knowledge down from one generation to the next. Archaeologists learn about ancient people by studying the tools they left behind.

Nevada's ancient people hunted large animals and small ones. They fished. They gathered all kinds of plant foods. They made clothing and baskets and pottery. Each kind of work they did demanded a special set of tools, or toolkit. They made tools of stone and bone and WOOD. Toolkit styles have changed over the thousands of years that people have lived in Nevada. Let's have a look at some common toolkits of hunter-gatherer people of the Great Basin.

Hunting Toolkits

A young man and his cousin sat quietly behind the low rock wall of their hunting blind for most of the afternoon. A hunting blind is a place in which hunters can hide. They usually cover it with brush. The young men passed the time repairing broken arrowheads and making new ones. Finally, five bighorn sheep approached the spring below them. The young man drew his bow, aiming for the largest animal. The arrow struck and the sheep fell, but it struggled upright and began to run. The young man's cousin quickly shot another arrow and brought the animal down.



A Prehistoric Sewing Tool-an AWL

An awl is a very useful tool. It is a pointed tool often made of bone. It is used to punch holes in hides, baskets, and other materials.



Hafted stone knives were good for cutting things.



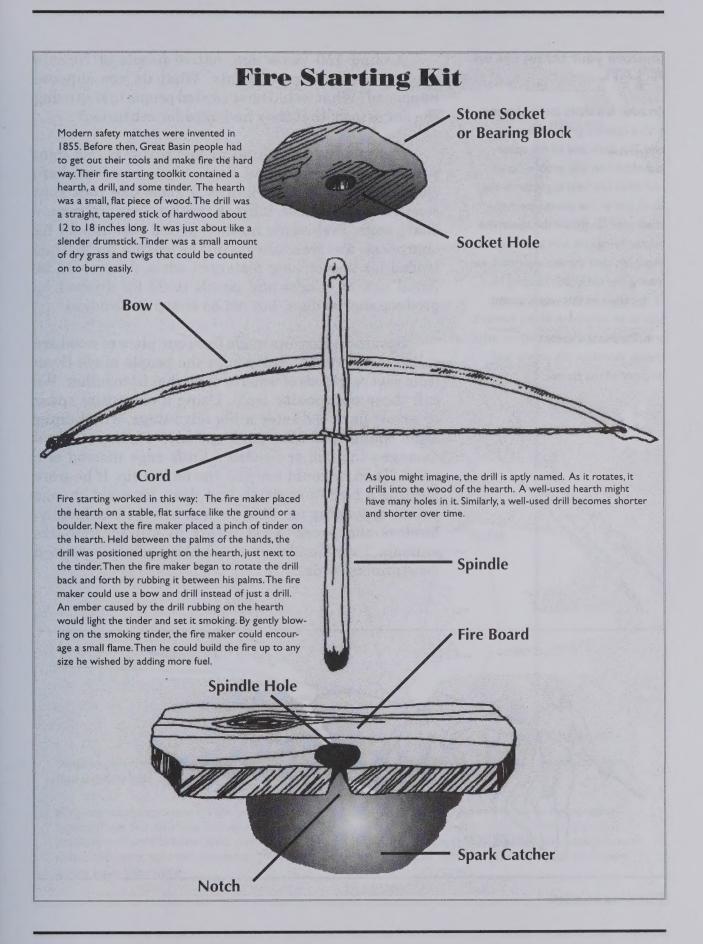
A quiver held arrows and was carried across one shoulder.

The two began to butcher the sheep using stone KNIVES attached, or **hafted**, on handles of wood. They removed the hide and hooves, and cut up the meat. They carried all this back to the family camp. The hide would be cleaned with stone **scrapers**, which are small, sharp pieces of stone. With the help of a bone AWL, or punch, new leather moccasins would be sewn. The meat would be boiled. Maybe, the young men hoped, their grandmother would flavor the soup with wild onion and salt.

Prehistoric hunters needed specialized tools to kill and butcher their prey. Their toolkits might contain several kinds of arrows, a bow, knives, and a FIRE STARTING KIT. They needed **tinder**, a small amount of dry grass or twigs that would catch fire easily. They also needed extra **toolstone** for making new stone tools. They carried most of these things in a bag called a **QUIVER**, made of badger or bobcat hide. They might also wear a small pouch hanging from their waist for the smaller items.

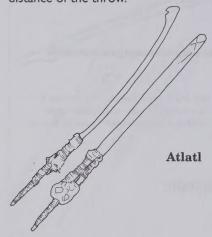
Bows and arrows appeared in the Great Basin about 2,000 years ago. Before that, hunters used short spears. They threw the spear overhand or with a throwing stick called an ATLATL (see page 6-4). Using an atlatl increased the power and distance of the throw. The shaft of the spear was thick and heavy. At its tip was a large stone point. Using spears was clumsy, but folks depended on them for thousands of years. Then the people of the Great Basin learned about hunting with bows and arrows, probably from native people living in the Great Plains. Bows and arrows were an improvement over the atlatl and spear.

Arrow points or arrowheads are generally lighter and smaller than spear points. The style and shape of both kinds of points changed over the centuries. Archaeologists have given names to the point types they have studied. (See page 6-5.) They have figured out how old each point type is. Sometimes they find charcoal, bone, and wood near the points in archaeological sites. They assume the points belong with the charcoal, bone, and wood. When they date those things, they figure that the point is the same age. Can you figure out why this method sometimes doesn't work?



Improve your throw, use an ATLATL

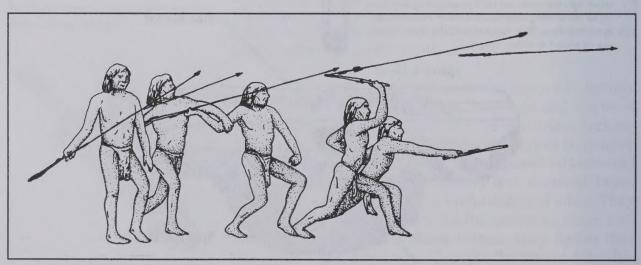
An atlatl is a short piece of wood with a hooked groove at one end. The back end of the spear is tucked into this groove. Spear and atlatl are held together in the hand, just at the point where the atlatl ends. To throw the spear, the hunter brings his arm back over his shoulder, then throws overhand, releasing the spear but keeping hold of the atlatl. In this way, the atlatl acts as an extension of the hunter's arm. Throwing a spear with an atlatl greatly increases the power and distance of the throw.



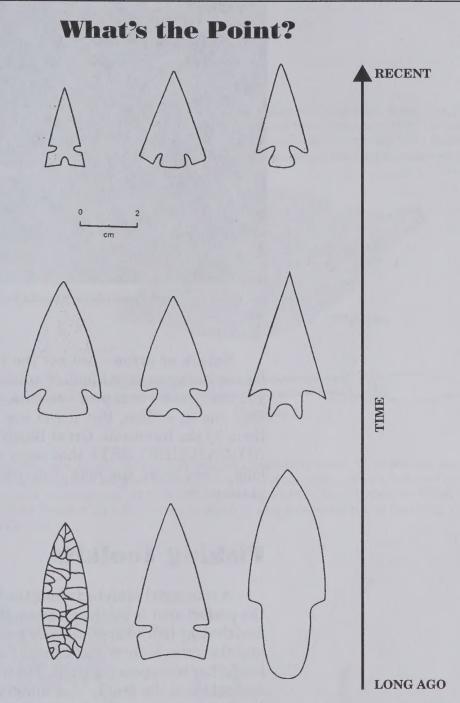
Around 150 years ago, native people of Nevada stopped making arrow points. What do you suppose happened? What would have caused people to stop using the stone tools that they had used for centuries?

Hunters made their spear and arrow points from several kinds of toolstone. Some kinds were obsidian, chert, and basalt. Obsidian is a glass-like rock that comes from volcanoes. It breaks with a clean, extremely sharp edge. Prehistoric hunters prized obsidian for its sharpness, and were always on the lookout for it. They traded for it over long distances when none could be found nearby. Chert and basalt could be chipped, to produce sharp edges, but not as sharp as obsidian.

Spears and arrows made from one piece of wood are called simple tools. Sometimes the people made them from several pieces of wood or cane that fit together. We call these **composite** tools. Using a composite spear or arrow gave a hunter a big advantage. The hunter could change points or parts quickly. Perhaps he had damaged the tool or needed a knife edge instead of a point. Then he could use just the hafted tip. If he were hunting a bird, a squirrel, or a deer, he could change points depending on what he was after. Occasionally, hunters sharpened wood points to kill squirrel-size animals. They found that round, blunt points were good for stunning birds.



Throwing an atlatl.



Suppose you are an archaeologist working in Nevada. You find a stone point in the site. How would you figure out its age?

First you would compare it with other points found in the Great Basin. That will help you figure out its type and age. For example, suppose the point is small and thin with notches in the side. That means it is probably a Desert Side-notched point. We know that people made Desert Side-notched arrow points from about 750 years ago until just about 150 years ago. If you find a matching shape you will know when your arrow point was made.



Are these rock art figures from Nevada holding a rabbit catching net?

Spears or arrows are not the most effective tools for capturing certain kinds of animals. For example, if you use arrows to capture rabbits, you can take them only one at a time. But if you use nets you can take them by the hundreds. Great Basin people made RAB-BIT-CATCHING NETS that were sometimes 300 feet long. They wove the nets from cord they made from plant parts.

Fishing Toolkits

A young girl searched along the bank of the river for the perfect spot to catch minnows. She knew she would find the tiny fish where the water was shallow and quiet, and the river bottom was sandy. Farther downstream her father was spearing trout. The winter had been long and cold and the family was hungry for fish.

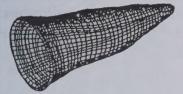
Prehistoric people made fishing tools that were sometimes quite simple, sometimes not. They made BONE HOOKS, small HARPOONS, FISHING LINE, and NETS. They built fishing platforms and made reed boats.

Fishing Tools

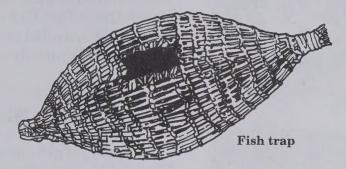
Fishing trap



Indian people often made nets from a plant known as Indian hemp. First, the netmaker scraped the bark from the hemp plant. Then the person crushed and split the stem. Next the netmaker rolled fibers of the plant into strands and twisted the strands together to make string. Finally the netmaker wove the string into netting.



Fishing net

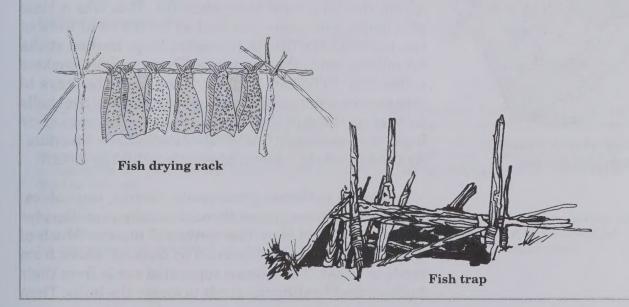




Harpoon

Making a Harpoon

To make a harpoon, you first glue a point made of deer bone to a foreshaft of wood. To do this you use a mixture of pine pitch and charcoal for the glue. A foreshaft is a short piece of wood that is hollowed out at one end and slipped over the main spear shaft. A string holds the two shafts loosely together. When you spear a fish with it, the foreshaft slips off the main shaft but remains connected to it by the string. Now you can haul in the fish!



Hunter-gatherers used baskets for many things.



Winnowing tray.



Carrying basket



Washoe weavers created baskets with designs.

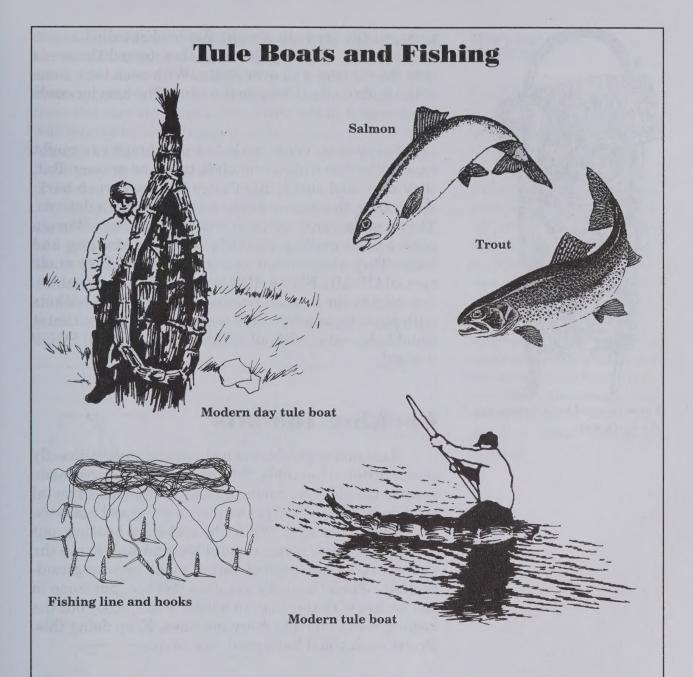
People fished for cui-ui, TROUT, and SALMON all year long. Of course, some places were better than others for catching these fish. Fishermen set nets where the Truckee River flows into Pyramid Lake to catch cui-ui in the spring. To catch trout from most streams and rivers, they baited their hooks with caterpillars. They used a BASKET FISH TRAP to gather river fish in a small area near a bank. (See page 6-7.) Then they could harpoon or net the fish. Sometimes fishermen worked from platforms built over streams. Other times they worked from **TULE** or reed boats in lakes and marshes. Some folks traveled north to the Snake River for summer and autumn salmon fishing.

Gathering Toolkits

A group of girls and boys laughed and joked as they followed their mothers, fathers, aunts, and uncles up the trail. Their families had come together for the pine nut harvest. It was a clear day with just a little nip of autumn in the air. The children were happy to be together again. They had spent a long summer wandering the countryside. They were ready for days and days of gathering pine nuts, playing games, and feasting.

The pine nut harvest was a high point in the gathering year. Families might travel a hundred miles or more for the harvest. Often, they joined many others where the pine nuts were plentiful. This was a time for visiting and games, as well as for the hard work of the harvest. For this they needed long, hooked sticks for pulling down the pinecones. They used flat baskets called WINNOWING TRAYS. They used the trays to winnow or separate slightly cooked nuts from the shells by tossing them in the air. They carried nuts on their backs in cone-shaped CARRYING BASKETS. Each family brought along its own pine nut-gathering toolkit.

Women gathered grass seeds, berries, vegetables, and roots as they ripened throughout the year. Besides gathering plants they also gathered insects. Much of their gathering work depended on baskets woven from reeds or grass. The women separated seeds from their hulls by first beating the seeds to loosen the hulls. Then



Cui-ui [KWEE-wee] are bony suckerfish that live nowhere else in the world but Pyramid Lake. In the spring, the cui-ui swim to the delta, or mouth, of the Truckee River. This is at the south end of the lake. From there they swim as far up river as they can to spawn, or breed. Historically and prehistorically, cui-ui were an important source of food among the Pyramid Lake Paiute people. They used nets and hook-and-line methods to capture the fish. They also used baskets to gather the fish eggs. The fish and eggs might be eaten fresh or dried for later use.

People have built two dams on the Truckee River in modern times. The dams have shortened the upriver cuiui spawning runs by forty miles or so. At the same time, we use water for agriculture. It equals almost half the river water that once flowed into the lake. As a result, the cui-ui fish may not continue to exist.



A cradleboard kept babies out of harm's way.

they put the seeds in a wide, flat basket called a winnowing tray. Flipping the tray, they tossed the seeds into the air over and over again. With each toss, some of the hulls floated away on the wind. The heavier seeds were caught in the tray.

The women made baskets from things you might expect like thin willow branches, tule, and grasses. But, they also used surprising things like sagebrush bark. Sometimes the weavers created baskets with designs. They used several colors to create the design. Women used basket-making methods to weave clothing and bags. They also wove spoons and brushes. They made special **CRADLEBOARDS** for carrying young babies. Sometimes the women covered tightly woven baskets with pinesap, or pitch. This sealed the basket so that it could hold water without leaking. Just think, a SOUP basket!

Cooking Toolkits

Meat and vegetables can always be cooked directly over a fire or in hot coals. But how would you have made soup in the old days when you had no flameproof metal container? Easy—just get a nice fire going and put some fist-size rocks into it. While the rocks are heating, put your soup bones, meat, vegetables, and water into the pitch-covered, waterproof basket made by your grandmother. When the rocks are good and hot, put some in the basket with the food. In a little while, scoop out the cooling rocks and add more hot ones. Keep doing this. Pretty soon you'll have good, hot soup.

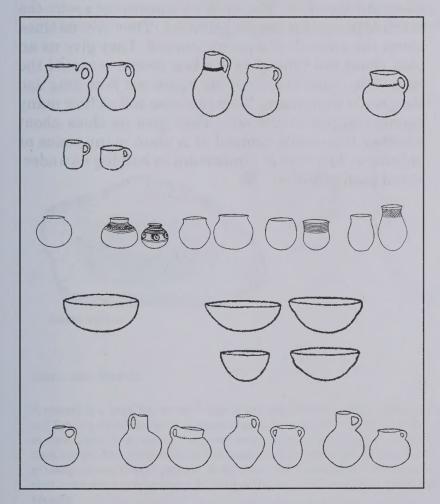
Native Americans used pottery for the same tasks that they used baskets for. They carried and stored food and water in pottery jars and bowls. They also cooked the food in pottery jars. Sometimes they left the pottery plain. At other times they decorated it. Sometime the potters glazed and painted their POTS. It depended on when, where, and by whom the pots were made.

Native Americans made their pots by first rolling soft clay into long, snake-like ropes. Then they coiled the ropes around and around to form a bowl or jar shape.

Next they scraped or paddled the pot with a small stone to make it smooth. Finally, they heated the pot in an open fire to change the soft clay into a hard pot. Prehistoric pottery came in various colors. The colors came from the clay they used. Shoshone and Paiute pottery was mostly brown. Fremont people made gray pottery. Ancestral Pueblo folks often painted fancy designs on their gray or white pots.

Archaeologists study pottery to help them learn about early cultures. They look at the designs on the pots and study the clay and TEMPER used to make the pots. These things tell them where the pottery came from.

Native Americans could eat pine nuts and acorns, grass seeds, roots, insects, and even small mammals whole. Sometimes they ate these things raw, sometimes



Archaeologists study pottery shapes and designs to tell what group of people made the pot.

Don't lose your TEMPER!

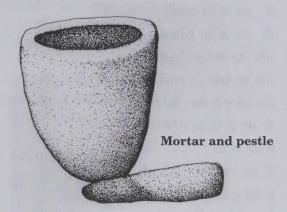
If you lose your temper, you're in trouble. If a potter loses temper, he or she won't have a very good pot! This kind of temper is any material added to clay. It makes the clay easier to handle. To have a good pot you have to fire or bake it in really high heat. Temper helps hold the pot together during firing. It helps to keep the pot from cracking as it is heated and cooled. Temper might be sand or even the crushed sherds of discarded. broken pottery. Some minerals that appear in certain tempers are rare. Perhaps they can be found only in special places. Archaeologists often study the temper or color of pottery clay to discover where the pot was made.

they cooked them. But very often they ground plant foods into meal or paste before eating them. They ground up food between two stones. Archaeologists find two different kinds of grinding stones in the Great Basin. A set of two stones called a MANO AND METATE is one kind. The other is a set of two stones called a MORTAR AND PESTLE.

When seasons changed the people put together different toolkits for the new season's tasks. They might refit a summer fishing kit in the autumn for hunting and pine nut gathering. Families moved around a lot in the Great Basin. They took most of their tools with them and made new tools as they went along. Their survival depended on having the right tool at the right time.

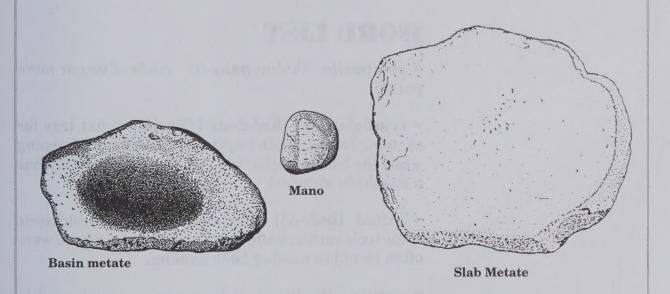
Tools found by archaeologists in sites help us understand the past. They tell us something about the kinds of plants the people gathered. They give us clues about the animals the people hunted. They give us an idea about the time of year when people occupied the site. They may even help us figure out how long ago the people were there. They can even tell us how many people camped at the site. They give us clues about whether the people camped at a place many times or only once. Artifacts are important in helping us understand past cultures.

Mortars and Metates



Mortar and Pestle

Mortars are rocks containing round, deep holes. To use them you place nuts or other items in them for pounding or grinding. A pestle is a long stone that you hold in your hand. You use it to grind and pound the contents of the mortar. Using these two together makes the mortar hole become deeper. The end of the pestle becomes flatter. In the Great Basin, people made mortars in large boulders or in bedrock. Bedrock is rock that is part of the ground, like the rock on a canyon rim. Neither was portable, but pestles were. You can find bedrock mortars mostly in the extreme western part of Nevada, along the Sierra Nevada Range.



Mano and Metate

A metate is a large flat stone. To use it you place corn or other items like pottery temper on its top. Mano is a Spanish word for hand. A mano then is a stone held in the hand. You use it to grind the corn against the metate. Using these two stones over and over rubs some of the stone away. This creates a shallow groove, or dent, on the top of the metate. The bottom of the mano becomes smooth. Manos and metates are portable grinding stones. That is, you can easily move them over short distances—around a campsite, for example. But they were too heavy to carry for long distances. Archaeologists find manos and metates in sites throughout Nevada.

Pronunciation Guide

a as a in cash
A as a in place
ah as o in shop
au as ou in out
ch as ch in chicken
& as e in mitten
e as e in pet
E as ee and y in breezy
g as g in go
i as i in pit
I as i in mice
j as j in jump

ng as ng in swing

O as o in so
o as aw in paw
oi as oy in boy
oo as oo in hoot
sh as sh in shut
th as th in thick
th as th in the
uh as u in butter
ur as ur and er in murder
u as oo in book
y as y in yet
zh as si in vision

WORD LIST

- **composite** [kuhm-**pahz**-it] made of two or more parts.
- **cradleboard** [**krAd**-uhl-bO(ur)d] a flat tray for carrying babies. It can be placed in tree for safekeeping while the baby's mother is busy. The board usually has a sunshade attached.
- hafted [haft-ed] attached to a handle—prehistoric stone tools such as knife blades, axes, and scrapers were often bound to wood or bone handles.
- quiver [kwiv-ur] a long, narrow pouch used to carry arrows and other hunting tools.
- **scraper** [**skrAp**-ur] a stone tool. The edge is used for various scraping tasks such as removing the hair from animal hide or removing bark from woody plants.
- tinder [tin-dur] a small amount of dry grass and twigs that burns easily.

- toolstone [tool-stOn] a rock suitable for making flaked stone tools. For example, obsidian, chert, and basalt. Hard stone that produces sharp edges is good toolstone. Soft stone that crumbles easily or that contains lots of irregularities does not make good toolstone.
- tule [too-lE] a tall reed that grows in marshes. It is used by Native Americans to make boats and other items.
- winnow [win-O] to separate seeds from husks.

Explorers, Trappers, and Early Trails

we learned that Indians were the first people to live in Nevada. It was a long time before other people found out about the area. They heard about it during the middle 1800s. That's when Americans and others were beginning to head west. People called the area the Great American Desert. They thought it was too dry to cross.

Still, there were a few brave explorers who crossed southern Nevada in the late 1700s. A few more dared to make their way into the desert in the early 1800s. They were the first NON-INDIAN PEOPLE to live in Nevada. They were from Europe and the United States. They made maps of the places they explored. They kept journals about their adventures. This means we know exactly when these people showed up here.



Mountain men on the move.

Early Exploration

Spanish people were the first explorers who entered Nevada. In those days, Nevada was not a part of the United States. It was owned by Spain. Spain claimed all of the area between the Rocky Mountains and the Pacific coast. It included present-day Nevada, New Mexico, Arizona, Utah, and California.

Spain had colonies in New Mexico, Arizona, California, and northern Mexico. Their capital was Mexico City. They were very far away from that city. It was hard to travel to them from that city. The trail was long and dangerous. Some of the colonies were a long ways from each other. The Spanish explorers wanted to find a good route between them.

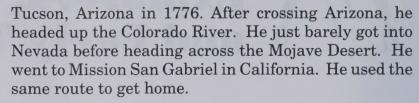
Father Francisco Garces was the first explorer to cross Nevada. He was from Spain. He started out from

If they're not Indians, they're NON-INDIAN PEOPLE

This may seem like an awkward way of putting things. Why not just say Europeans or Americans? Europeans were not the only people to come to Nevada to explore and settle. There were also people from Africa and Asia. Non-Indians is a good way to describe all of them.



We think Jedediah Smith was the first trapper in Nevada.



Fur Trappers

FUR TRAPPERS were some of the first explorers who traveled the West. They were looking for new places where they could trap animals for their fur. They searched Nevada north of the Virgin River. They were the first non-Indians to explore that area. The first trapper in the state was JEDEDIAH SMITH. This was in 1826. He decided to take a southern route from the Great Salt Lake to California. He just barely got into Nevada. Then he left again.

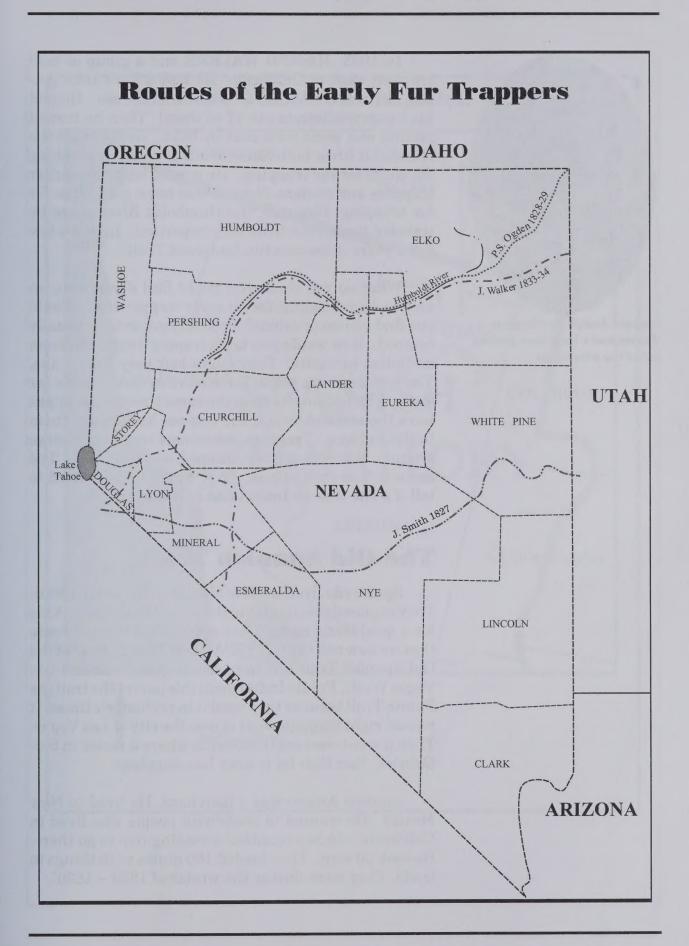
On his return trip in 1827 he saw much more of Nevada—maybe more than he would have liked! He crossed the central Sierra Nevada Range over Ebbetts Pass. He continued across central Nevada. Jedediah kept a journal. He said it was so hot that he and his men dug holes in the sand and laid down in them to cool their bodies.

If you were to take a trip on U.S. Highway 6 you would be following Smith's route.

PETER SKENE OGDEN explored northern Nevada in 1828 and 1829. Like Smith he traveled with a group of men and kept a journal. In the journal he mentions that there were children and a woman along. He says they got lost once but were back with the group the next day. His group traveled through much of northern Nevada. He was a fur trapper from Canada looking for good trapping places. We think he was the first person to record the Humboldt River. Ogden was the first non-Indian to explore the Sierra Nevadas. He searched the eastern side of the mountains. He was looking for a good supply of beavers and other animals to trap. He didn't find what he was looking for so he moved on.



Peter Skene Ogden explored northern Nevada.





Captain Joseph Reddington Walker had a hard time getting out of the mountains.

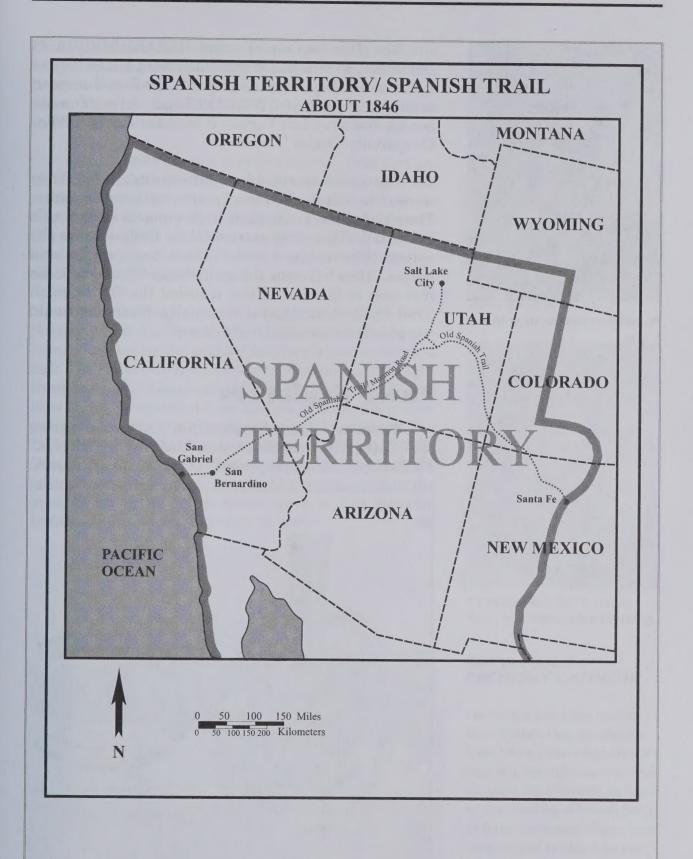
In 1833, JOSEPH WALKER and a group of men traveled west to California. He had a hard time getting out of the mountains. He lost 24 horses. He and his hungry followers ate 17 of them! Then he turned around and went back east in 1834. He followed the Humboldt River both times. Walker also was checking the place for fur trapping. He agreed with the earlier trappers and traders. Nevada was not a good place for fur trapping. However, the Humboldt River route he traveled turned out to be very important. In just a few more years it became the Emigrant Trail.

What do you think you might find if you were an archaeologist looking for an early trapper site? Would you find houses or cabins? Probably not as they usually camped. How would you tell a trapper's campsite from an Indian campsite? They might look very much alike. The trapper's site might have more artifacts made far away. The Indian site from the same time period might have the same objects if the trapper had traded them to the Indians. Trappers sometimes traveled in large groups. Sometimes they trapped on their own. The same is true for Indians. So it would be very hard to tell if a site was an Indian site or a trapper site.

The Old Spanish Trail

Spaniards lived in New Mexico in the early 1800s. They explored the country to the west. They were looking for a good trade route. They established a trade route that we now call the OLD SPANISH TRAIL. Part of the Old Spanish Trail ran along the Virgin River and Las Vegas Wash. Paiute Indians call this part of the trail the Paiute Trail because they used it in prehistoric times. It passed right through what is now the city of Las Vegas. Then it went west into California where it ended in San Gabriel. San Gabriel is near Los Angeles.

Antonio Armijo was a merchant. He lived in New Mexico. He wanted to trade with people who lived in California. So he organized a trading trip to go there. He took 60 men. They loaded 100 mules with things to trade. They went during the winter of 1829 – 1830.





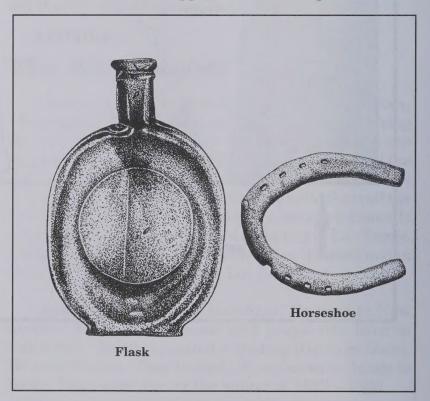
Rafael Rivera's statue is in Las Vegas.

One of the men was his scout, RAFAEL RIVERA. In December, Rivera and several men went ahead to take a look at a valley. He was probably the first European to enter it. Now we call it the Las Vegas Valley. You can see his statue in Las Vegas. It is at the Rafael Rivera Community Center.

The traders traveled during the spring and fall. They wanted to travel when the desert weather was cooler. They loaded wool onto their pack animals in Santa Fe in the fall. Then they started off for California. In the spring, they returned with Chinese items, mules, and horses. They left some things in Santa Fe, and took the rest east to Missouri. They traveled the Old Spanish Trail until about 1850. Eventually, Mormons would use much of this same route as well.

Later Explorers

There was lots of exploration in Nevada during the 1840s. One explorer was CAPTAIN JOHN C. FREMONT. He was supposed to make maps of the area.

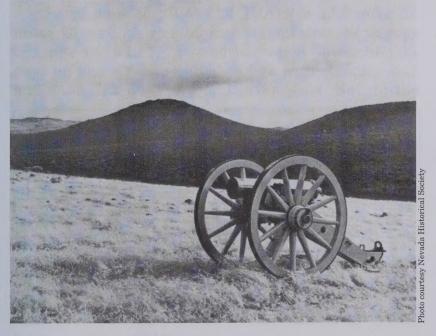


Artifacts from the Old Spanish Trail in Nevada.

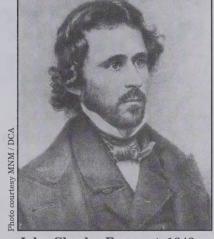
He mapped mountain ranges, rivers, and valleys. He and his group drug along a small cannon. The snowdrifts became very deep. They couldn't drag it around anymore. They left the "FREMONT CANNON" somewhere in Northern Nevada.

KIT CARSON was a very good scout. Fremont decided to hire him for the mapping trip. Fremont wrote stories about their adventures. He sent the stories to newspapers. Many people throughout the country read the stories. Both men became famous. People named several places in Nevada and other states for Kit Carson and John C. Fremont.

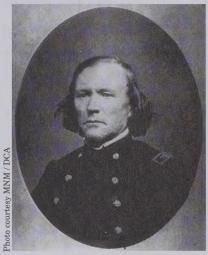
After 1848 many people traveled through Nevada. Someone had discovered gold that year in California. People headed for the gold fields. They hoped to strike it rich. They followed the Humboldt River route. You might think they would have called it the Humboldt Trail. But they didn't. They called it the Emigrant Trail. They were **emigrants**, or people who were going to a new place. The U.S. Army began sending troops in the 1850s and 1860s. One of their jobs was to make sure routes were safe for people crossing Nevada. Another job was to explore the area. Some of the people never made it past Nevada. Instead they decided to stay and settle.



A replica of the Fremont cannon.



John Charles Fremont, 1848, made maps of the area.



Christopher "Kit" Carson, 1864, was a scout for Fremont.

Can you find the FREMONT CANNON?

No one has ever found the Fremont Cannon. Many people have looked for it. Now a days, there is a copy of it. You might see it at either the University of Nevada Las Vegas or the University of Nevada Reno. Each year the winner of their football game gets to keep it for the next year.

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I as i in mice
j as j in jump
ng as ng in swing

O as o in so
o as aw in paw
oi as oy in boy
oo as oo in hoot
sh as sh in shut
th as th in thick
th as th in the
uh as u in butter
ur as ur and er in murder
u as oo in book
y as y in yet
zh as si in vision

WORD LIST

• emigrant [em-i-gruhnt] someone who goes to live in a new place.



The Emigrant Trail, the Goldrush, & the Comstock Bonanza

The promise of land and gold tempted thousands of people to go west. Before the late 1840s, most of the West was not part of the country. Not many people went west. But in 1845 Oregon became part of the United States. Next, the United States ended its war with Mexico in 1848. Then the rest of the West became part of the country. Lots of people decided to go west to become farmers.

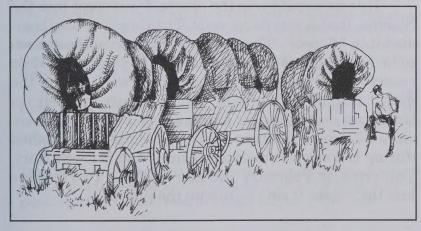


A wagon train heads west

The Emigrant Trail

The first travelers headed west across the land. They packed all the necessities of life into wagons. They needed oxen or horses to pull them, and extra animals as well. Going west was risky business. No road showed the way, no town sheltered the weary traveler. No one knew what lay ahead.

Some days the WAGON TRAIN might cover 25 miles. Other days, rough ground might slow the wagons to a mile and a half. Bad weather might force a halt for days on end. Travelers had to live with choking dust and wind, intense heat, and severe cold. But, in the



A wagon train heads to Nevada.

1840s people wanted land of their own. They took the risk and began the journey. Most made it. More followed, and the route they traveled became known as the EMIGRANT TRAIL.

One of the hardest places to cross was called the Fortymile Desert. By the time they reached it, most travelers were short of food and low on water. Their wagons were in bad shape and their livestock were exhausted. They were travel-weary, weakened by ill health and poor diet, but they pushed on. Some managed to get their wagons through. Others abandoned their ruined wagons and dying livestock. They took only what they could carry on their backs. All tried to hurry across the desert. Often they traveled at night when it was cooler. They wanted to avoid the blinding sun and the blistering desert floor.

The Truckee River Route

In 1844, a group of people called the Stevens Party set out on the Emigrant Trail. They reached the Humboldt River. Then they decided to blaze a new trail due west. They passed the Humboldt Sink and crossed the Fortymile Desert. Then they headed up the Truckee River into the Sierra Nevada Mountains. They got snowed in and had to leave their wagons. When the weather turned good, they went to recover their wagons. People called this new portion of the Emigrant Trail the Truckee River Route.

This new route was the shortest way west into the Sierras. It also was dangerous. The Donner Party traveled it in 1846-47. They knew it was late in the season to be heading into the mountains. They had almost no reserve supplies. Their animals were worn out by the desert crossing. They paid a terrible price for their actions. An early October storm snowed them in. There were 87 people in their party. Of those, 35 perished during the winter. Rescuers came from Sutter's Fort, California, in February and March 1847. Two Indians lost their lives trying to rescue the group.

The Emigrant Trail



The Emigrant Trail was not just one trail. At first it entered Nevada at its northeast corner. It came from Utah. Travelers then continued on the trail to near the present town of Wells. From there they followed the Humboldt River toward the west. They found water and food for their animals in the river valley. Next they crossed the Fortymile Desert. Then they headed for the Truckee River. Later they used the Carson River. Finally they crossed the Sierra Nevada.

People always looked for shorter or easier trails. Some later travelers tried a route further south. This route was closer to Pilot Peak. They followed a trail called the Hastings Cutoff. But Hastings Cutoff was even more difficult than the other trail. Soon they stopped using it.

There was another route. This route started along the Humboldt River. But the people only went part way. They stopped about where the town of Lovelock is today. There they could choose another route called the Applegate-Lassen Trail. This trail went to Oregon and part of California.



Explorer James Beckwourth found a low pass over the Sierra Nevadas.

Same place-different spelling FORTYMILE DESERT

People on the Emigrant Trail spelled "Fortymile" as just one word. Today, people spell it as two words, Forty Mile.

After that, people didn't use the Truckee River Route much. They looked for lower places to cross the mountains. It would be several more years before they found new passes. In 1850 JAMES BECKWOURTH found a low pass over the Sierra Nevada. In 1851 he led a wagon train north and west on a trail from the Truckee Meadows. (This is where the cities of Reno and Sparks now are located.) The trail crossed the mountains to Marysville, California. Now the gold seekers and emigrants could cross a lower pass.

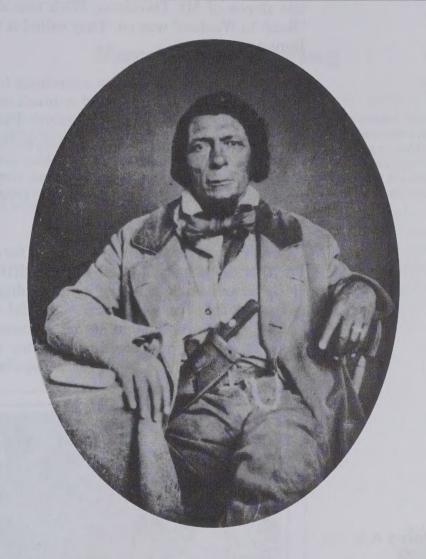
Archaeologists have looked at the Emigrant Trail. They found much evidence of hard times on trail. In the FORTYMILE DESERT, for example, they found wide, deep rut marks. These show where wagons toiled through the dunes. In some places, the wagons even left ruts in bedrock. While most emigrants survived the trip, some died along the way. Archaeologists found the graves of twelve emigrants just west of Fortymile Desert. Their families and friends marked the graves with stones carried from the edge of the desert. However, the names of these lost travelers remain unknown.

What other evidence of emigrant travel do you think archaeologists might find?

You can still find traces of the Emigrant Trail all across Nevada. But not much is left. Recently people built modern highways that follow nearly the same route. These destroyed part of the trail. Many people want to save remaining parts of the trail. One way to do this is by setting aside special places for the trail. The Black Rock Desert—High Rock Canyon Emigrant Trails National Conservation Area in northwestern Nevada is one of these places. Hopefully, we can preserve traces of the trail there for future people.

The Comstock Bonanza

John Sutter found gold in California in 1848. Many more people went west in the late 1840s and early 1850s to look for gold. A few people found gold in a Nevada canyon. This was near present-day Dayton. They explored up the canyon. Soon they found more gold on



James P. Beckwourth

James Beckwourth lived an exciting life. He was an important person in the history of the western United States and Nevada. Beckwourth was born in Virginia in 1798. His mother was an African-American slave. His father was a white plantation owner. His father freed him from slave life. His father also taught him to read and write. Beckwourth later used these tools to tell his life's story. Sometimes storytellers stretch the truth a bit. Beckwourth did that, too. But there is no doubt about his importance as an explorer.

Beckwourth was famous and people told tales about him. He was a fur trader and explorer. He was called a mountain man because he lived in the mountains. He was also a military scout and prospector. He did this at a time when much of the West was still being explored and mapped. He had also lived as a member of the Crow Indian tribe. He even fought battles as a warrior for them. Beckwourth wrote a book about his life. It was published in 1856. He died in 1866.

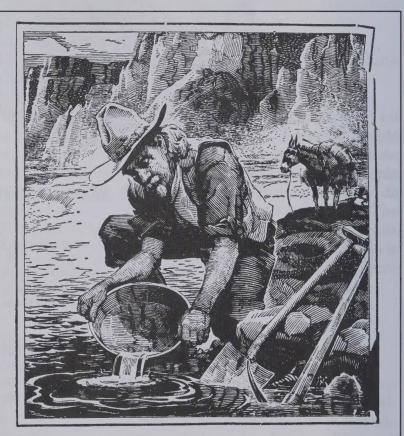
the slopes of Mt. Davidson. With this discovery, the "Rush to Washoe" was on. They called it the Comstock Bonanza.

Comstock miners were searching for gold. They were bothered by a crumbly, blue-black rock. It clogged their PLACER MINING equipment. **Placer mining** is a type of mining that uses lots of water to wash the dirt and gravel away from the gold. They tested the blue-black rock to see if it was worth anything. They found that it was valuable silver ore. **Ore** is metal that can be mined.

A huge amount of silver ore spread far underground. For this the miners needed to do HARD ROCK MINING. Hard rock mining involves digging rock out of the ground. The people had a special name for rich discoveries of ore. The name was bonanza. The Comstock discovery was very large so they called it "The Big Bonanza." There was even a popular book called

If it is wet and messy it is PLACER MINING

In placer mining, the miner washes gold from the surrounding earth. Sometimes they used huge machines that changed the stream they worked on. Miners tried placer mining on the Comstock. Soon they abandoned it for two very good reasons. For one thing, there was little gold to be found on the Comstock. For another, there wasn't enough water to use for placer mining.

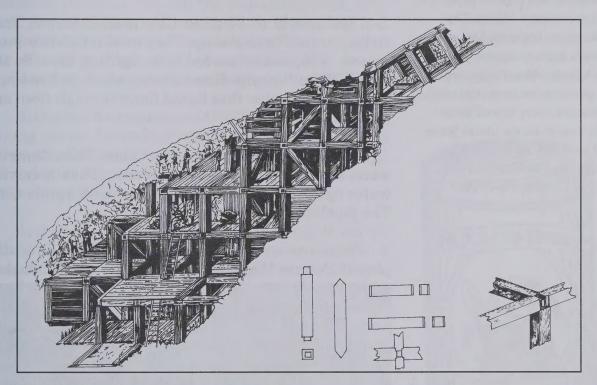


Historic illustration of a placer miner with a gold pan.

oto courtesy Denver Public Library-Western History Collection

Hard Rock Mining

The Comstock was rich in silver ore. However, the ore was located far underground. The miners needed to create shafts and tunnels. Working so far underground the miners came upon many difficulties. The rock was hard. The air was very hot and the air quality could be so bad it could kill them. Sometimes they found rising water. To deal with these conditions, they invented new ways to make mining safer. Miners used drills, dynamite, picks, and shovels to get the rock containing the ore out of the ground. Then they took the ore out of the rock at a mill, sometimes by using big, heavy, metal "stamps" to pound and break the rock.



Stopes made mines safer.

The silver ore was located hundreds of feet underground. The miners had to pick and shovel and blast their way into the earth. This was dangerous. They had to make their shafts and tunnels safe. They did this by building "stopes." Stopes are cubes built of thick wood timbers. They connected each stope to the one above, below, and to either side of it. Stoping kept the upper levels of the mine from caving in on miners below. This technology, used throughout the mining world, was invented on the Comstock by German-born Philip Deidesheimer. It was called the "square set method" and made the Big Bonanza possible.

What's in a Name? MARKTWAIN 1835-1910

Mark Twain was the "pen name" of Samuel Clemens. He grew up in Missouri. In the early 1860s he and his brother, Orion, left there to go west. Orion became the secretary of Nevada Territory. Samuel hoped to make his fortune in silver mining. Like many others, wealth escaped him. He began to write for a newspaper in Virginia City. While he worked there Samuel Clemens began to sign his work "Mark Twain." After that he wrote and give speeches under that name. He became a very famous person. Folks throughout the United States read his works. He is famous for writing Tom Sawyer. Do you know of other books by Mark Twain?

"The Big Bonanza." The Comstock was one of the most important mining regions in the West.

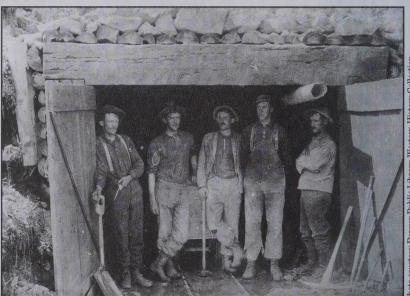
Virginia City was the most important city in the mining region. Famous people walked its streets. For example, MARK TWAIN wrote for its newspaper.

Virginia City was like many other mining towns. It boomed, or grew rapidly. The rapid growth created problems. One problem was that the people needed water. Another problem was that they couldn't find places to live. Another problem was that they needed firewood. How do you suppose they solved these problems?

The people of Virginia City needed water. They wanted water for drinking. They used it for their businesses. People also needed it for fighting fires. So the MINERS built a **pipeline** to bring water to the town. A pipeline is a pipe that liquid flows through from one place to another.

The pipeline started at Lake Tahoe. Then it carried water down from the Sierra Nevada. Then it carried water uphill into the mountains around Virginia City. The pipeline was a great feat at the time.

You can see some pieces of the original pipe on display at Bowers Mansion. Bowers Mansion is a Washoe



Hard rock miners from about 1901.

oto courtesy Denver Public Library-Western History Collect

County Park. You will find the park between Carson City and Reno.

The people of Virginia City needed wood—lots and lots of wood. They cut large forests around Lake Tahoe to provide wood. They needed wood for buildings and to support the roofs inside the mines. They also used wood for cooking and heating fires and for fires used to process ores. They needed roads to haul freight, wood, ore, and people. We still use many of these roads today. Some are paved for cars, trucks and buses.

There is a great deal of "stuff" remaining from the Comstock Bonanza. We call the remaining stuff, artifacts. Archaeologists still need to study them. They find the artifacts in the mines and cellars. They also find lots of them in old **privies**, or outhouses. Why do you suppose they find so many artifacts in privies?

Scientists find mounds of OYSTER SHELLS in the mining towns. Mounds of oyster shell tell a tale about life on the Comstock more than a hundred years ago. What do you suppose we can learn from a pile of oyster shells found on a desert mountainside?

Archaeologists find evidence of mining. It covers nearly all the rest of Nevada. You can see much of it from our roads. One thing you might see would be a small place called a **prospect**. These are places where miners looked to see if there were any signs of valuable ore. Usually they were looking for gold or silver. Once somebody found some good ore, they explored surrounding areas to see where else they might find gold or silver. This was prospecting.

Old time prospectors dug these holes with hand tools. Sometimes they used explosives. Modern miners use drilling machines. These machines bring up cores of rock. Then the miners look for gold and silver in the rock cores.

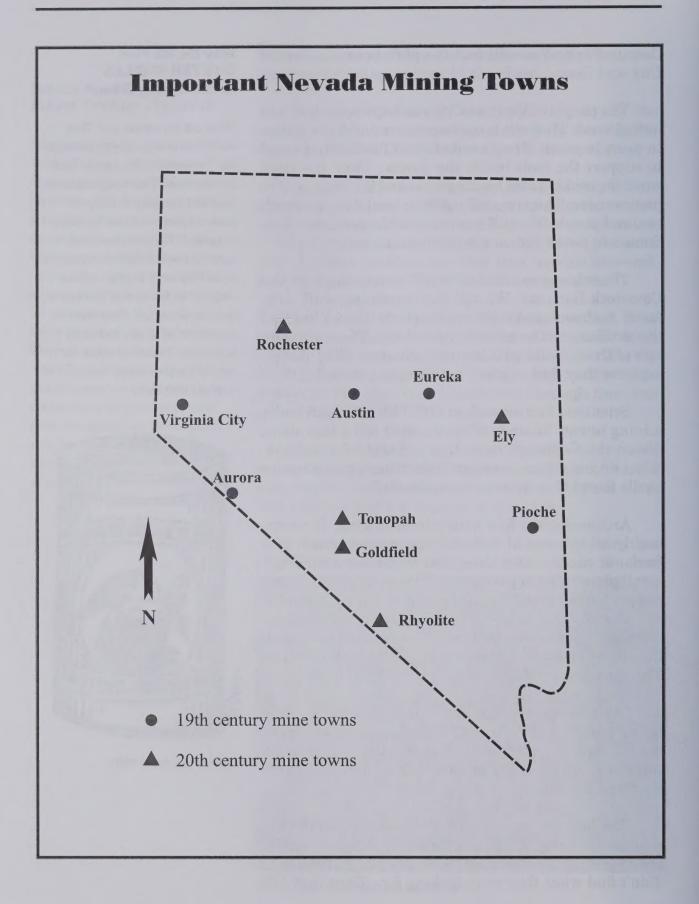
The miners dug prospects almost anywhere they thought they might find gold or silver. They put many prospects high up on mountain slopes. Many times they didn't find what they were looking for. Then they left

Why Do We Find OYSTER SHELLS In Old Mining Towns?

What did the miners eat? They were busy prospecting or mining all day. They didn't have time to hunt or raise food. They bought canned food that was easy to carry. In town they ate food that was easily shipped in. Oysters sometimes came to towns in barrels. Other times they came in cans. Archaeologists use the cans to find out how old places are. They find old records of what cans and labels looked like. Then they match the cans to the pictures to find out how old the can is.



Oyster tin from 1897



the prospects without filling in the hole. However, if results were good, the PROSPECT might disappear. That is because the miners made it into a mineshaft.

What artifacts do you think you would find around a small prospect? If you said almost none you would be right. Sometimes archaeologists find a few tin cans or a broken bottle. This is evidence of the prospector's meals during a short stay of a day or two.

Probably all mines began with a small prospect. Sometimes the miners found a rich body of ore. They could develop one of these into a very large mine. Large mines employed many people who lived in a town. They might have to process the ore in a special mill. So, you might see remains of mines or mill buildings. Or you may pass through one of the many MINING TOWNS in the state such as RHYOLITE, Austin, or Eureka. Many modern mines involve excavation of large, open

More PROSPECTS than mines

There are many more prospects than mines. Prospects vary widely in appearance. It depends on where they are located and what kinds of ores the miners are seeking. A prospect might be a hole dug into the ground. It might measure 10 feet across at the top. It would be about 5 to 10 feet deep. There will be a pile of dirt around it. Or, it might be a short tunnel dug into the rock. The tunnel would be 5 to 10 feet long.



The Bottle House in the old mining town of Rhyolite, Nevada.

Yours and Mine Safety? STAY OUT & STAY ALIVE!

Stay away from prospects and mine shafts! Archaeologists know these can be dangerous. You should know this too. The edge (or "collar") of a prospect or shaft may be loose and could give way under foot. There may be very deep holes or dangerous gases in the air. Dangerous snakes might stay there to stay cool. There may be poisonous chemicals or even dynamite. Even a prospect can be deep enough to hurt someone badly who falls into a pit. Sometimes people riding motorcycles or ATVs can't see the holes in time and fall into them. Every year, people are hurt or killed because they were not careful around old mines. Don't be one of them.

pits. Just imagine how these will appear to archaeologists of the future!

Twentieth Century Mining

As we read before, mining has been the main reason why many people came to Nevada to stay. But mining tends to be a very "up and down" business. During the "up" or "bonanza" time, there is ore or the promise of ore. Lots of people arrive and stay. They need food, supplies, government, and schools for their children. During the "down" or "bust" times, towns can disappear very quickly. People abandon their homes, their jobs, and mine claims. They look for something better somewhere else. This has certainly been the case for Nevada.

The Comstock Bonanza was mostly over by the end of the 1800s. But soon people got excited again. Someone made a big strike in Tonopah in about 1900. Another mining boom began. People prospected for ore in lots of other places. They found new strikes in many places in Nevada. They settled new towns such as Rhyolite, Rochester, and Goldfield. Some towns, such as Rhyolite, had short lives. After the mining ended others, such as Tonopah, changed and went on.

The country needed ores other than precious gold or silver. Nevada had many of them like copper, lead, and tungsten. These are just a few of the ores that people took from rocks in Nevada. Mining has been important to the state for many years. Archaeologists still find remains of mining. They find mining towns, the mines, and the mills. If you find mining places, please STAY OUT & STAY ALIVE.

There is still mining in Nevada. There was another boom in the 1980s. The miners dug large, open pits by carving the earth away. The pits covered hundreds of acres. "Monster" trucks hauled dirt and rock. Miners recovered invisible pieces of gold. Again, the towns grew during the boom. And again many faded away when the prices of gold and silver went down. What do you think archaeologists of the future will find from open pit mining in Nevada?

Pronunciation Guide

a as a in cash
A as a in place
ah as o in shop
au as ou in out
ch as ch in chicken
& as e in mitten
e as e in pet
E as ee and y in breezy
g as g in go
i as i in pit
I as i in mice
j as j in jump
ng as ng in swing

O as o in so
o as aw in paw
oi as oy in boy
oo as oo in hoot
sh as sh in shut
th as th in thick
th as th in the
uh as u in butter
ur as ur and er in murder
u as oo in book
y as y in yet
zh as si in vision

WORD LIST

- bonanza [buh-nan-zuh] a rich discovery of ore.
- hard rock mining [hahrd rok mIn-ing] mining that involves digging rock out of the ground.
- ore [O(uh)r] metal that can be mined.
- **pipeline** [**pI**-plIn] a pipe that liquid flows through from one place to another.
- **placer mining** [**plas**-ur **mIn**-ing] a type of mining that uses lots of water to wash the dirt and gravel away from the ore.
- **privies** [**priv**-Ez] outdoor toilets, also called outhouses; one outhouse is a privy [priv-E].
- **prospect** [**prahs**-pekt] a place where miners looked to see if there were any signs of valuable ore; people who do this are called prospectors.

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Trails to Rails

In the United States we usually measure distance between places in miles. For example, it is about 3,000 miles from New York to San Francisco. But we also can measure it in terms of time. That would be useful if we plan to travel that distance. If we travel by car the distance is about four days. It is three days by train. If we fly it is only a few hours by plane.

150 years ago it was mostly Indians who lived in the West. Most other Americans lived in the eastern part of the country. They measured the distance between the East and the West in months or even years. The West was very far away. Only a few explorers had traveled there. Even fewer had returned to tell about it.



A Pony Express rider

The Pony Express

During the middle of the 1800s many thousands of people headed west. These people were a long ways away from the rest of the country. They wanted to be able to send letters to their friends and family "back East." But it took a very long time to send letters back and forth. Sometimes the letters did not make it.

At that time, people had two ways of communicating. They spoke directly or wrote letters to one another. There were no telephones or next-day mail delivery. There were no four-lane highways and no trucks to carry mail on them. There were no computers so no one had thought up the Internet. Instead they sent the mail in horse-drawn wagons or COACHES. A written letter might take weeks to cross the country in the mail.

In April 1860, THREE MEN (see page 9-2) started the PONY EXPRESS. Riders would carry the mail on



A stage coach pulled by teams of horses used to carry the mail.



Who started the Pony Express? THREE MEN

W.H. Russell, Alexander Majors, and William B. Waddell started the Pony Express. They already ran a similar business. It was the Overland Stage line. It ran a daily coach from the Missouri River to Salt Lake City.



The stage coach had interior seating and storage on the top.

ponies. They would go from St. Joseph, Missouri, to Sacramento, California. The riders would do it in ten days or less. This was an amazing thing to promise. The route was more than 1,800 miles long! That is a very long way to travel by horse in ten days or less.

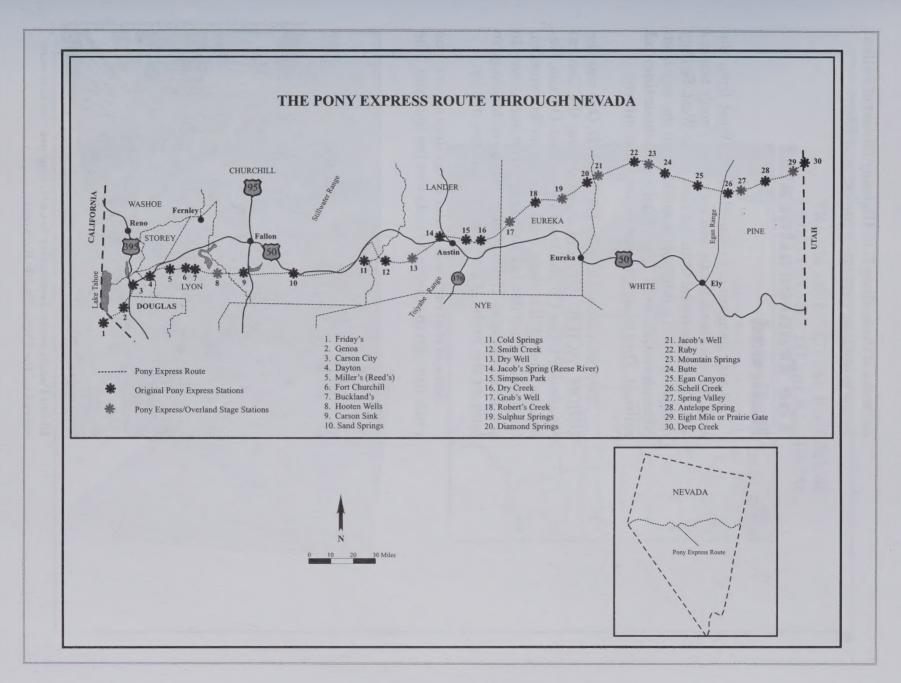
There was already a route from St. Joseph to Salt Lake City, Utah. Freight and mail wagons traveled much of it. The Pony Express used most of that ROUTE. But it was different from Salt Lake to Sacramento, California. The company had to build new stations or stopping places. A rider got a fresh horse at each station. The stations were located every ten to twenty miles along the way.

A single rider would usually ride 75 to 100 miles. Then he would stop for a rest and another would take over. Each man rode a horse as rapidly as possible. They carried up to twenty pounds of mail. The riders rode by themselves. The weather was harsh, either very hot or very cold. And they rode through areas where the Indians were unfriendly to outsiders.

The Pony Express faced many sorts of problems. Indians attacked the stations. They killed or wounded the people there. They burned the buildings and burned or stole the supplies. But the most severe problems were financial ones. It cost a lot to run the company. And, even though they charged a big sum for each piece of mail, they couldn't make enough money to "break even."

The Pony Express soon had another problem. There was a better way to send messages. A telegraph is a way of sending messages across wires. Western Union built a new **telegraph** line. It stretched all the way across the country. They finished the line on October 24, 1861. Now there was no need for the riders. Four days later the Pony Express ended.

You can see the remains of some Pony Express stations in Nevada. But you will not find much of the actual route. This is because they used it for a very short period of time. There were just 150 round trips. And the company did not really build a trail. Archaeologists have dug some Pony Express stations in Nevada. You can



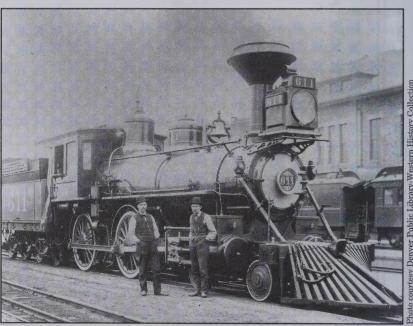
see some of these along U.S. Highway 50 east of Fallon. There is another excavated station near Ely.

The Transcontinental Railroad

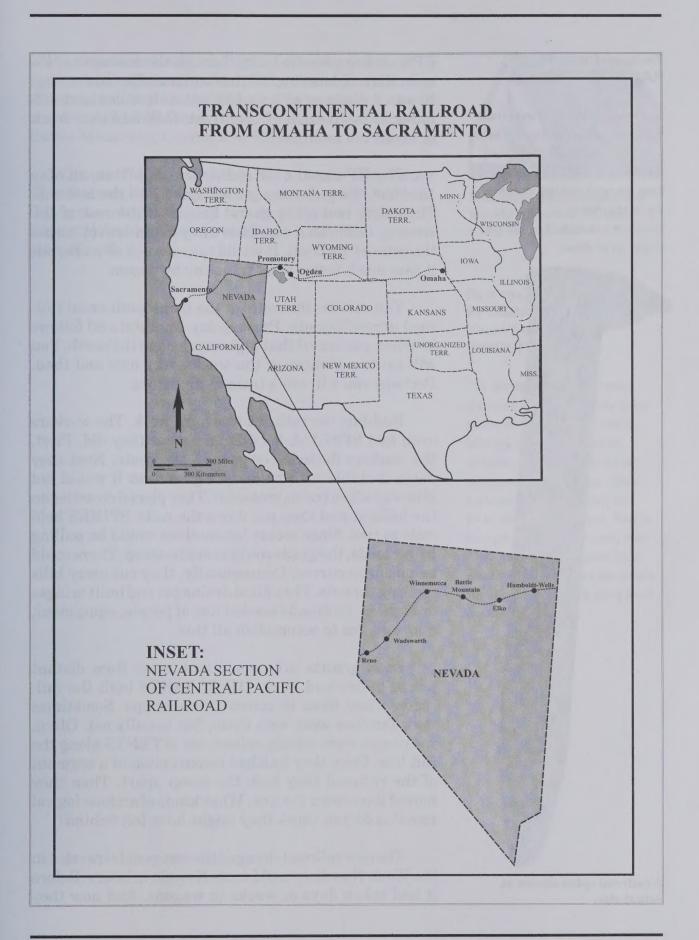
It was dangerous to travel to the West from the East. It was also difficult and very slow. People needed a better way to travel from the East to the West. So they decided to build a railroad. It would go all the way from Nebraska to California. They called it a transcontinental railroad. That meant it went across the continent.

Two companies built the RAILROAD. One was the UNION PACIFIC (UP) and the other was the Central Pacific (CP). The UP laid tracks west from Omaha. Nebraska. The CP laid their tracks east from Sacramento. California. They needed land to build on and money to pay for building it. The United States government gave land for the route. It also loaned them the money.

Some of the track was easier to lay than others. The route through the Sierra Nevada was the toughest. The



Union Pacific steam locomotive No. 611. Engines like this once served on the Union Pacific Railroad.



Train work needed RAILROAD WORDS

Rail = long sections of steel track
Railbed = the leveled bed of earth
on which track is laid

Ballast = crushed stone used to keep the track and ties from moving on the railbed

Grade = a stretch of railbed that slopes up or down



A railroad spike shown at actual size.

CP took five years to build through the mountains. Finally the builders reached the California Nevada border. It was a distance of only 138 miles. It was about 450 miles across Nevada. In contrast, they laid that track in about ten months.

The UP met the CP at Promontory, Utah, on May 10, 1869. They drove a golden spike into the last rail. Then they had a big party. People in the rest of the country celebrated too. Now they could travel across the country by train. It would take a week or more, but it was much faster than traveling by wagon.

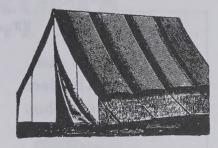
You can see the route of the transcontinental railroad across Nevada. Present-day Interstate 80 follows it. When you travel that highway, look to the north. You will catch a glimpse of the track every now and then. Perhaps you will see a train racing along.

Building the railroad was hard work. The workers even had SPECIAL WORDS for what they did. First, the workers flattened or graded, the route. Next they made it stable with ballast, or gravel, so it would not give way when trains crossed it. They placed crossties on the ballast, and then put down the rails. SPIKES held rails to ties. Since steam locomotives would be pulling heavy loads, the grade could never be steep. There could be no sharp curves. Consequently, they cut away hills and dug tunnels. They filled drainages and built bridges or trestles. Railroads needed lots of people, equipment, and supplies to accomplish all this.

Immigrants are people who come from distant places to live and work. IMMIGRANTS built the railroads. They lived in construction camps. Sometimes their families were with them, but usually not. Often, the camps were merely collections of TENTS along the rail line. Once they finished construction of a segment of the railroad they took the camp apart. Then they moved it on down the line. What kinds of archaeological remains do you think they might have left behind?

The new railroad changed the way people traveled in the West. Now they could cross Nevada in hours. Before it had taken days or weeks in wagons. And now they could ship their livestock, logs and lumber, and other big loads. People built nearly fifty stations and towns along the rail line across Nevada. You might be living in one. Some are still there: Reno, Lovelock, Winnemucca, Battle Mountain, Carlin, and Elko.

Others didn't last. They have names like Camp Thirty-seven, Raspberry, Stone House, Toy, and Argenta. But archaeology can help tell their stories. What artifacts and features do you think we might find in such places?



Wall-style tent. Camps were merely collections of tents along the rail line.

First they're EMIGRANTS, Then they're IMMIGRANTS

The words, emigrant and immigrant, are almost alike. They mean similar things. A person who is leaving one place is called an emigrant. That is because he or she is going from a place. Once a person gets to the new place he or she is an immigrant. That is because he or she has come into a new place. The Emigrant Trail was called that because the people starting out on it were going from the East to the West.

Pronunciation Guide

a as a in cash
A as a in place
ah as o in shop
au as ou in out
ch as ch in chicken
& as e in mitten
e as e in pet
E as ee and y in breezy
g as g in go
i as i in pit
I as i in mice
j as j in jump
ng as ng in swing

O as o in so
o as aw in paw
oi as oy in boy
oo as oo in hoot
sh as sh in shut
th as th in thick
th as th in the
uh as u in butter
ur as ur and er in murder
u as oo in book
y as y in yet
zh as si in vision

WORD LIST

- immigrant [im-&-gruhnt] someone who comes from a distant place to live and work.
- **telegraph** [**tel**-uh-graf] a way of sending messages across wires.
- **transcontinental** [**tran(t)s**-kahnt-uhn-**ent**-uhl] crossing the continent.



Nevada Settlers

You have read about new people who came to Nevada. We call most of them Euro-Americans. That is because they came from Europe or America. The word also can mean people whose parents or grandparents came from Europe. Did you notice that most of them did not stay in the Nevada area? Instead, they explored or got some furs. Some just passed through Nevada while going somewhere else.

Settlers came to Nevada by wagon.

Some people did come to Nevada aiming to stay. We call these people SETTLERS. They decided to find a way to make a living. They might decide to raise a family or start a business. Or, they might decide to start a town with a government. The settlers started many of our Nevada towns in the 1800s.

In this chapter you will learn about some of these early Nevada settlers. Many were Euro-Americans. Some were Chinese. Others were African Americans.



Archaeologists found artifacts at this modern day field school at a site in Virginia City.

Same people, different name MORMONS

Sometimes we use the word Mormons for members of the Church of Jesus Christ of Latter-Day Saints. Most of the early members were from America or Europe.



Glass bottle



Metal horseshoe

People left many things behind on the Old Spanish Trail.

They left behind artifacts and sites. You will read about some things that ARCHAEOLOGISTS have found. (See page 10-1.)

Mormon Settlers

Mormons were some of the earliest settlers in what is now Nevada. The MORMONS are a religious group. They began to move to the West in 1847. Mostly they moved into what is now Utah.

In 1850 an important event happened. The United States government decided to make another territory in the West. It was in the places where the Mormons had settled. They called it UTAH TERRITORY. They began to start more towns there.

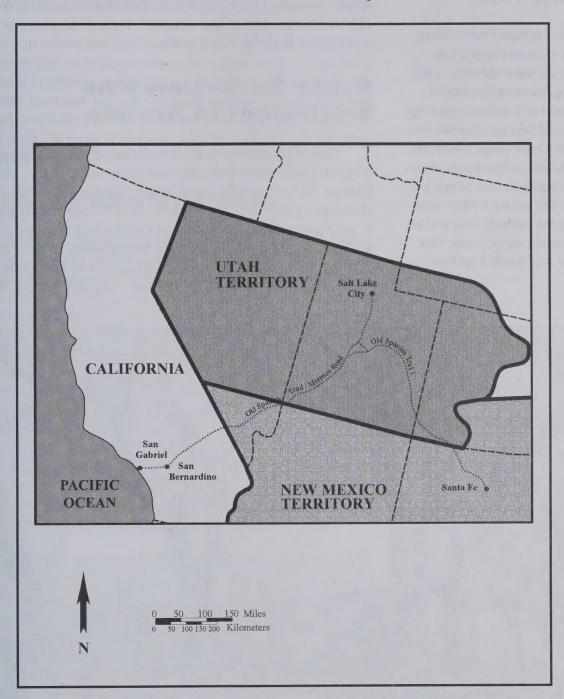
People who are traveling need supplies like food and water. People who live somewhere can sell or trade supplies to travelers. In Genoa the Mormons started a station or trading post where people could stop for supplies. It was one of the most important early places in Carson Valley. Another was at a large spring in Las Vegas Valley.

In Las Vegas Valley the Mormons built a fort. The fort also was a trading post. Many travelers came to the fort when they followed the Old Spanish Trail. Archaeologists have found stretches of this trail. They found artifacts or THINGS PEOPLE LEFT BEHIND. These things tell us about people who traveled on the trail. As you might expect they found horseshoes and muleshoes. They also found cartridges from guns. They found tobacco tins and glass from bottles.

They built an adobe fort for protection. They built a corral, fences, and irrigation ditches so they could farm. But the Mormons soon abandoned the place. There area had water, but the farms could not produce enough food to support everyone. Now we call it the OLD LAS VEGAS MORMON FORT. (See page 10-4.)

Archaeologists have found remains of the old fort. It is right in the middle of present-day Las Vegas. Most

Utah Territory



The Mormon Road joined the Old Spanish Trail in Utah Territory. Many people used the Trail to travel to California.

Once a fort, now a park: THE OLD LAS VEGAS MORMON FORT

The Old Las Vegas Mormon Fort is right in the middle of a busy city. Part of the original fort is still standing. Scientists have rebuilt even more of it. Archaeologists digging at Old Las Vegas Mormon Fort found out many things. They discovered the size and placement of fort walls and gates, fences, corrals, and ditches. You can see artifacts recovered by the scientists. They are on display at the visitor center. Now the fort is a Nevada State Park.

of the old adobe fort is gone. What you see of the fort is now rebuilt. Earlier, people used parts of the fort's foundation for other buildings. They built the STEWART RANCH on some of the original fort. This place is now a Nevada state historic park.

Other Euro-American Settlement in Nevada

Other people settled Nevada too. Some of the people who settled came from the eastern part of the United States. Some people came from Europe. We call all of these people Euro-Americans. It also can mean people whose parents or grandparents came from Europe. They settled in all parts of Nevada. Many came to get rich by mining. Many started out for California on the Emigrant Trail. Not all of them finished the trip. Some died. Some



The old Stewart Ranch was also an historic Mormon site. You can see it in Las Vegas at the old Las Vegas Mormon fort.

hoto courtesy Ne

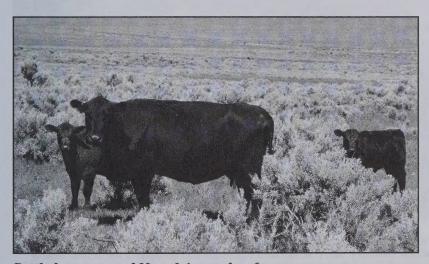
went all the way to California and some stopped along the way. They saw opportunity where they stopped. These folks started settlements along the way.

Some of the earliest settlements were stations. Stations were places where travelers could rest. They could get new supplies and make repairs before continuing. Station keepers sold dry goods and equipment. They raised crops and livestock to sell and for their own use. They sold these to travelers who wanted fresh produce and meat.

Farmers and Ranchers

Many people decided to stay in Nevada. They found good grass in the valleys east of the Sierra Nevada. They decided to stay in the valleys and raise livestock. These cattlemen drove their herds across Nevada. Then they sold the CATTLE in California. They set up some of the earliest Nevada ranches. These were in Carson Valley, Las Vegas Valley, Smith Valley, Lahontan Valley, Mason Valley, and Paradise Valley. Why do you suppose the ranchers settled in these valleys instead of others? Hint: Check your map of Nevada. Where would they find water sources they could count on year round?

Can you think why some people might call this early settlement an accident? Most of these folks had aimed for California. They stopped short of it when they saw good opportunity in Nevada country.



Cattle have roamed Nevada's ranches for many years.

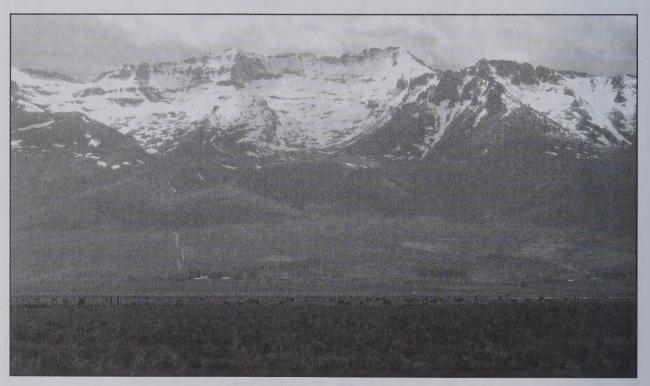


Horse-drawn wagon from 1897.

It wasn't long, though, before more and more Euro-Americans decided to come to Nevada. They meant to settle here. First they worked in the mines, then on the railroads. These people needed agricultural products. They wanted fresh produce and meat for their tables. They needed feed for the horses and oxen hauling freight. They needed WAGONS to haul things in. This meant that farmers and ranchers could sell their products in Nevada. And, soon they had railroads to haul products.

Two other important things happened. First, the United States Government made it possible for people to own land they settled on and improved. They could do this for a very low price. They called it **homesteading**. We call people who did this homesteaders. Often they had to live many miles from a town. They might live just as far from their nearest neighbor.

Second, Nevada is a pretty dry place. The people wanted to bring farming water to the land. So they began to build big water projects. These brought water to places that had been dry. They built a system of ditches, pipes,



Many Nevada ranches are near a valley floor. The snow from high mountains often provides water for people, animals and crops. Ranches usually have several buildings surrounded by trees. Many acres of grazing land are needed for cattle and for animal feed crops.

and canals to bring the water to the dry land. We call this **irrigation**. There are many water projects across Nevada. The City of Fallon is an example of a town that began with an irrigation project.

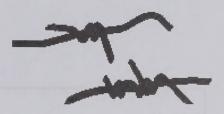
Other people heard about Nevada. They heard it was a good place to farm and ranch. More and more people headed for Nevada. They began farming and ranching all over the state. Now folks from many places were involved in agriculture. Italians, Greek, and Irish farmed and ranched. So did English, Spanish, and Mexican people. Basque people herded sheep.

Not all farms and RANCHES were successful. Sometimes the soil was poor or there was too little water. Other times town people didn't buy their products. These things drove ranchers and farmers out of business. They were forced to abandon their homesteads.

There are few written records of these people. Sometimes we can find them. But often such records do not show much about the people's lifestyles. The records usually don't show what they bought or ate. Records don't show how they organized their households. But archaeology can help us get a better look at all of these things.

Archaeologists have looked at some old homesteads. What kinds of artifacts would you expect to see on an abandoned farm or ranch? Houses, barns and other buildings, privies, corrals, BARBED WIRE fence lines, ditches, and water tanks to name a few. Would all these still be around? Do you think they would still be standing? How would you recognize these things if they had collapsed and been scattered by the wind?

Think about the kinds of things that farmers and ranchers made or purchased. They used the items and then sometimes discarded or abandoned them. We call those things ARTIFACTS. Make lists of the kinds of artifacts you would expect to find at different places on a ranch. For example, what might the ranchers have left behind in a barn or in a kitchen? What would you find in an old tool shed? Look over your lists and decide which items would have rotted away by now. Now look



There were many styles of barbed wire used for fence lines.



One artifact from a farm or ranch might be a pitch fork.

at the lists again. Which items would have survived? Hint: metal, glass, ceramics, leather, bone, and rubber survive for a long time in Nevada's dry climate.

Archaeologists study artifacts and what is left of the buildings from historic farms and ranches. They study stations on long-abandoned trails. They examine the remains of mining towns and logging camps. They even study remains found in big cities with long histories. Their questions about these different kinds of places are often very similar. Who lived there? What did they eat? Were they well off or living in hard times? Did they have kids? How did they make a living? And, very importantly, how well did their lifestyle work?

Chinese Settlers

Some immigrants came to Nevada from south China. They arrived during the mid-1850s. They were



Chinatowns flourished in Virginia City, Austin, Eureka, Elko, Lovelock, Winnemucca, and Genoa.

excited by the idea of finding gold. The first place they settled was present-day Dayton. They did all kinds of jobs. Some Chinese people were skilled workers. Others were unskilled laborers. Some were storekeepers.

In large towns they often lived in Chinese neighborhoods. People called these places "CHINATOWNS." There, Chinese people could visit and pass along news. Having traditional Chinese foods and medicines was very important to them. They needed special tools for preparing their food. They could buy the things they needed from Chinese merchants. Some non-Chinese people didn't like the Chinese. They treated them badly. In their own neighborhoods the Chinese could protect themselves from these people.

Many Chinese men worked in construction. They helped build the transcontinental railroad. The Chinese dug up the tree stumps left by loggers to use for firewood. They dug ditches to bring water to farmers' fields. They grew vegetable gardens. Then they sold their produce to other people. Chinese men came by the thousands. However, few Chinese women came to Nevada before 1900.

Hard times swept the country in the late 1800s. Jobs became scarce and wages were low. Americans thought someone was to blame. They decided the Chinese were at fault. This was unfair. As a result, Congress passed a LAW. It limited immigration of Chinese people into the United States. Other people were hostile to them. Life was very hard. Still, the Chinese stayed in Nevada. They raised families and ran businesses. They became respected Nevadans.

Suppose we looked at the archaeology of an early Chinese neighborhood. What do you think we might find? What kinds of artifacts might tell us if women lived there? What kind would tell us if children lived there?

During the 1970s archaeologists dug a Chinese neighborhood in Lovelock. It dated from the early twentieth century. They found amazing things. One was a hidden jar of gold coins. You can see many of

The Chinese Exclusion Act of 1882: AN UNFAIR LAW

- · passed by Congress
- limited immigration of Chinese people into the United States
- limited the return of Chinese people who had left the U.S. to visit China.
- remained a law until 1943.



Tabasco bottle from the Boston Saloon



Coin from the Boston Saloon

the artifacts. They are at the Nevada State Museum in Carson City. You can see more at the Marsden House Museum in Lovelock.

African American Settlers

African Americans came west for the same reasons other people came west. They wanted to find a good place to farm, mine, or own a business. But the old history books often do not tell their story. So some archaeologists decided to try to find out more of the story. They picked out the site of an old **saloon**, or bar, in Virginia City.

The scientists knew that it was a saloon owned by an African American named William A.G. Brown. He called it the BOSTON SALOON because he came from Boston. They found artifacts left by the men and women who went or worked there. These things told the scientists about the lives of the people at the saloon.

Would you expect to find artifacts from Africa? Remember that most African Americans had been in America for a long time. If you said no, you were right. The scientists found no artifacts from Africa. What kind of artifacts would you expect to find?

Archaeologists found out many interesting things. The saloon served food. It was similar to food people ate at other saloons in town. It served fine cuts of meat. How do you think the scientists figured that out? Hint: steaks and chops usually have a bone in them.

The owners used crystal glassware for serving drinks. Apparently they had entertainment by musicians. One of them played a trombone. Someone hid some COINS beneath floorboards of the building. The coins were bent and changed. What were these coins used for? No one knows for certain.

More on History and Archaeology

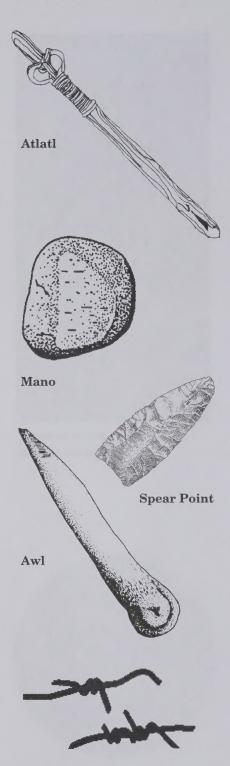
Many people have written about things that took place in the past. They wrote in books, newspapers, and diaries. We can find these writings in libraries and museums. But sometimes we can't find anything written about people. How could this happen?

People from all over the world have been part of Nevada's history. These people came from China, Spain, Africa, Mexico, parts of Europe, and many other places. Sometimes, the immigrants did not write in English. They could not tell their own stories. Sometimes, other people didn't like the new people. They didn't want to write about the new people. Perhaps they didn't think the new people important enough to write about. When this happened, the new people's stories are silent.

Sometimes archaeology can help us learn about these people. We might not find anything written about them. However, we might find sites and artifacts to tell us a story. This may be the only way to learn about some of these people from historical times.

Archaeologists can't always understand the things they find about a group. Sometimes one group might leave artifacts that look a lot like the things left by other people. Their lifestyles all look alike. Sometimes people might not have stayed in one place very long. They didn't leave very many artifacts. This could be true in a mining camp, where people moved in and out very rapidly. Sometimes there are a few written records. They help us figure out what the artifacts are.

We may never know some people's stories. Studying the places where they lived may be the only way to learn about other people. That is why we need to protect archaeological sites. Before we destroy them, we need to study them. The sites and artifacts may contain the stories of forgotten people.



Barbed wire

Archaeology is the best way to study artifacts. Leave them in place. Save the past for the future.

Looking Back: A Summary

We started these lessons to learn about archaeology and what it can tell us about Nevada's past. Archaeology is a science. Archaeologists work closely with many other different kinds of scientists. They also work with historians. They look at artifacts and records. Then they make inferences about past lifestyles. They learn how people lived. They try to understand how people changed their lifestyles to adapt. They also want to understand why lifestyles changed.

People have lived in Nevada for at least 12,000 years. That is the beginning of the prehistoric period. This is a time before anyone made written records in Nevada. Different kinds of plants and animals lived in Nevada than live here now. We see many of these plants and animals when we study prehistoric archaeology. Some people were hunters. Some gathered plant foods. Some people grew crops. Some people did all three. But most people in Nevada were hunter-gatherers for thousands of years. They made all their own tools from materials they found around them. They built shelters and raised families. They lived in valleys and went into the mountains.

And then things changed. Non-Native Americans began to arrive. Euro-Americans appeared in very small numbers in the eighteenth century. Most of them didn't stay for long. But they and people from other parts of the world came in large numbers in the nineteenth century. They brought new things such as metal tools and animals such as horses and cows. They also intended to stay. The Native American way of life changed very much. The archaeology of that time reflects these changes. These new people left their own kinds of archaeological sites. These include trails, trading posts, forts, homesteads, mines, and towns.

Archaeology is important. It teaches us about past people. It also teaches us about their lifestyles. Most early people left no written records, but they did leave ARTIFACTS and sites. Archaeology may be the only way to learn about them. Sometimes modern people believe these sites are important links to their past.

That's why we need to take care of archaeological sites. There are times when we have to tear up or destroy sites to make way for something else. But we can study the sites before we do that. We can make sure we take good care of them.

All of us must take care of archaeological resources to make sure we can learn from them. You can find interesting examples of archaeological sites today in Nevada. Some may be outdoors. Others may be in museums. Some may be in books. But they are there because someone cared enough to help preserve them. You can do the same. And there is always more to learn.

Pronunciation Guide

a as a in cash
A as a in place
ah as o in shop
au as ou in out
ch as ch in chicken
& as e in mitten
e as e in pet
E as ee and y in breezy
g as g in go
i as i in pit
I as i in mice

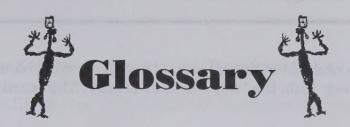
j as j in jump

ng as ng in swing

O as o in so
o as aw in paw
oi as oy in boy
oo as oo in hoot
sh as sh in shut
th as th in thick
th as th in the
uh as u in butter
ur as ur and er in murder
u as oo in book
y as y in yet
zh as si in vision

WORD LIST

- **Euro-American** [yur-O-uh-**mer**-&-kuhn] an American whose past or present relatives were from Europe.
- **homestead** [**hOm-**sted] (noun) a piece of land that someone gets from the government and builds on or improves. Usually they farm it. A homesteader is a person who lives on this land. (verb) to settle on land from the government and improve it, usually by farming.
- irrigation [ir-&-gA-shun] the act of bringing water to something dry.
- saloon [(suh-loon] a bar or place that serves alcoholic drinks.



Pronunciation Guide

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y as y in yet
zh as si in vision

- **adaptation** [ad-ap-tA-shuhn] a change made because of new conditions.
- **ancestor** [an-ses-tur] a person or group to whom one is related.
- **Archaic** [ahr-**Ka**-ik] people who lived in North America from about 8,000 years ago until historic times.
- archaeology [ahr-kE-ol-uh-jE] the study of past culture by using artifacts.
- artifact [ahrt-i-fakt] something made or used by people.
- **bonanza** [buh-nan-zuh] a rich discovery of ore.
- **climate** [**klI**-muht] the conditions of weather that are typical for an area; climatology is the study of weather and climate.
- **composite** [kuhm-pahz-it] made of two or more parts.

- cradleboard [krAd-uhl-bO(uh)d] a flat tray for carrying babies. It can be placed in tree for safekeeping while the baby's mother is busy. The board usually has a sunshade attached.
- **culture** [kul-chur] what a group learns to believe, do, and make.
- emigrant [em-i-gruhnt] someone who goes to live in a new place.
- equinox [E-kwuh-nahx] one of two days in the year when the sun rises and sets exactly in the middle between the most northern and most southern places.
- Euro-American [yur-O-uh-mer-&-kuhn] an American whose past or present relatives were from Europe.
- evidence [ev-uh-duhn(t)s] facts or clues that help someone make a conclusion.
- extinct [ik-sti(ng)(k)t] something which no longer exists in living form.
- figurine [fig-yu-rEn] a small statue or figure, made from clay, glass or stone.
- hafted [haft-ed] attached to a handle; prehistoric stone tools such as knife blades, axes, and scrapers were often bound, or hafted, to wood or bone handles.
- hard rock mining [hahrd rok mIn—ing] mining that involves digging rock out of the ground.
- history [his-tuh-rE] the study of the past using written records.
- homestead [hOm-sted] (noun) a piece of land that someone gets from the government and builds on or improves. Usually they farm it. A homesteader is a person who lives on this land. (verb) to settle on land from the government and improve it, usually by farming.
- hunter-gatherer [huhn-tur-gath-ur-ur] person who moves from place to place searching for food.
- immigrant [im-i-gruhnt] someone who comes from a distant places to live and work in a new place.
- **inference** [in-fur-uhn(t)s] a conclusion basked on facts.
- **irrigation** [ir-&-gA-shun] the act of bringing water to something dry.
- **kiva** [**kE**-vuh)] an underground room used for ceremonial purposes by modern Pueblo people and by Ancestral Pueblo people.

- landscape [land-skAp] a stretch of land that is viewed.
- **lifestyle** [**llf**-stIl] the way a group of people adapts the way they live to conditions around them.
- midden [mid-&n] a pile of trash.
- ore [O(uh)r] metal that can be mined.
- Paleo-Indian [pA-lE-O-in-dE-uhn] people who lived in North America 12,000 to 8,000 years ago.
- **pipeline** [**pI**-plIn] a pipe that liquid flows through from one place to another.
- placer mining [plas-ur mIn-ing] a type of mining that uses lots of water to wash the dirt and gravel away from the ore.
- playa [plI-uh] a flat, dried out lake bed.
- plaza [plahz-uh] a central open space for public use; a town square.
- **prehistory** [prE-his-tuh-rE] the study of people who had no written records.
- **privies** [**priv-**Ez] outdoor toilets, also called outhouses; one outhouse is a privy.
- **prospect** [**prahs**-pekt] a place where miners looked to see if there were any signs of valuable ore; people who do this are called prospectors.
- **pueblo** [**pweb**-lO] a many-roomed structure built above ground, sometimes with more than one story (but Pueblo with a capital P refers to the people who construct and live in pueblos in the American Southwest).
- **quiver** [kwiv-ur] a long, narrow pouch used to carry arrows and other hunting tools.
- raw material [raw muh-tir-E-uhl] something from which people make some other thing.
- **resource** [**rE**-so(uh)rs] a supply of something important which people can use.
- rock art [rahk ahrt] a design carved or painted on rock.
- saloon [(suh-loon] a bar or place that serves alcoholic drinks.

- scraper [skrAp-ur] a stone tool. The edge is used for various scraping tasks such as removing the hair from animal hide or removing bark from woody plants.
- seasonal round [sEz-uhn-uhl raund] the yearly pattern of moving from place to place in search of food.
- **site** [**sIt**] a place or a location; in archaeology, any place where people did something.
- social organization [sO-shuhl Or-gan-I-zA-shun] the way in which people arrange themselves into families and larger groups.
- solstice [sOl-stis] one of two days in the year when the sun rises and sets the farthest to the south or to the north.
- telegraph [tel-uh-graf] a way of sending messages across wires.
- tinder [tin-dur] a small amount of dry grass and twigs that burns easily.
- toolstone [tool-stOn] a rock suitable for making flaked stone tools.
- transcontinental [tran(t)s-kahnt-uhn-ent-uhl] crossing the continent.
- tule [too-lE] a tall reed that grows in marshes. It is used by Native Americans to make boats and other items.
- **winnow** [win-O] to separate seeds from husks.



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Appendices

- Introduction to Project Archaeology
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Introduction to Project Archaeology

Project Archaeology in Nevada

Project Archaeology in Nevada is sponsored by the U.S. Department of the Interior Bureau of Land Management as well as other public and private partners. The goal is to foster stewardship of Nevada's heritage resources and to promote educational, cultural, and scientific awareness to benefit diverse present and future generations.

Program History

Project Archaeology is an outgrowth of the Intrigue of the Past Program, a project of the Utah Interagency Task Force on Cultural Resources: the United States Department of the Interior Bureau of Land Management, the National Park Service, the United States Department of Agriculture Forest Service, and the State of Utah.

Mission of Project Archaeology

Project Archaeology uses archaeological inquiry to foster understanding of past and present cultures; improve social studies and science education; and enhance citizenship education to help preserve our archaeological legacy.

The Program

Project Archaeology is a comprehensive archaeology and heritage education program for everyone interested in learning or teaching about our nation's rich cultural legacy and protecting it for future generations to learn from and enjoy. Project Archaeology includes publications, professional development for educators, networking opportunities, and continuing support for participants. Using an innovative hands-on approach to history, Project Archaeology teaches scientific inquiry, citizenship, personal ethics and character, and cultural understanding.

Enduring Understandings

Project Archaeology teaches four enduring understandings:

- Understanding the human past is essential for understanding the present and shaping the future.
- Learning about cultures past and present is essential for living in a pluralistic society and world.
- Archaeology is a way to learn about past cultures.
- Stewardship of archaeological resources is everyone's responsibility.

Goal

By introducing the Project Archaeology program into Nevada, we hope to equip Nevada's children with the knowledge to make wise decisions regarding the use and preservation of archaeological resources and an appreciation of Nevada's diverse cultural heritage.

Audience

Project Archaeology targets educators: classroom teachers, scout leaders, and museum educators. Regional Project Archaeology facilitators provide training and mentoring to local educators, who in turn introduce archaeology into the classroom.

Project Archaeology Contacts

In Nevada, the Bureau of Land Management sponsors Project Archaeology. Nevada Project Archaeology offers workshops, which are open to teachers, scout leaders, home school instructors, museum educators, and other interested persons. For more information or to sign up for a workshop, please call or write:

- Project Archaeology Coordinator
 BLM Nevada State Office
 1340 Financial Blvd. P.O. Box 12000
 Phone: 775-861-6415
 Web page: www.nv.blm.gov
- National Project Archaeology
 P.O. Box 170570
 Bozeman, Montana 59717
 Phone: 406-994-7582
 Web Page: www.ProjectArchaeology.org
- The BLM Heritage Education Program P.O. Box 758, Dolores, Colorado 81323 *Phone*: 970-882-5600 *Web Page*: www.blm.gov/heritage/

How to Use This Book

Intrigue of the Past: Discovering Archaeology in Nevada is a part of a series of student handbooks that provide state or region specific information about archaeology. It can be used either with Project Archaeology's original publication, Intrigue of the Past: A Teacher's Activity Guide for Fourth Through Seventh Grades, or with Project Archaeology's upcoming publication, Project Archaeology: Investigating Shelter.

Reproduction and Citation

Discovering Archaeology in Nevada is designed to be reproduced for classroom use by students. Please reproduce the desired quantities of the chapters and lessons that you wish to use. If you want to use these materials for some other purpose, please contact the BLM Heritage Education Program first. Always list the publication title, and author of the piece you use and give our addresses on each page your reproduce for other than classroom purposes.

Grade Level

Discovering Archaeology in Nevada is written at a challenging fourth grade reading level. It is appropriate for 4th grade students and above.

Standards

Discovering Archaeology in Nevada meets geography, history, language arts, technology, reading, writing, and listening and speaking standards. Specific standards are addressed in each lesson.

Text Cues

- **Boldface** words from the text are contained in the word list at the end of each chapter and in the Student Glossary. Words that are printed in **boldface** usually are defined the first time they are used.
- ALL CAPS n the text indicate the word or idea is treated in a side bar or illustration on or near the same page.

Lesson Plans

Lesson plans are provided in this section for use with the book. These link to the lessons in *Intrigue of the Past: A Teacher's Activity Guide for Fourth Through Seventh Grades*. They will also support materials in *Project Archaeology: Investigating Shelter*, when it becomes available.

References

References used in producing *Discovering Archaeology in Nevada* are listed at the back of this section.

Teacher Lesson Plans

1	Nevada Geography	Page 2- 3
2	Learning About Nevada's Early People	Page 2- 9
3	Learning More About Nevada's Early People	Page 2 -14
4	Learning How to Pin Down the Past	Page 2- 20
5	Learning About Prehistoric Lifestyles	Page 2 -27
6	What Artifacts Can Tell Us	Page 2- 32
7	Artifacts: Treasures to be Protected	Page 2 -36
8	Historical Archaeology in Nevada	Page 2 -39
9	Preserving Our Past	Page 2- 44

Teacher Lesson Plans

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Discovering Archaeology in Nevada Lesson Plan #1

Grades 4 - 7 Related Chapters: All

Nevada Geography

Subjects: Geography, language arts

Strategies: Map skills, class discussion, writing

Duration: 90 minutes

Class Size: Any

The purpose of this lesson is to review basic concepts about the geography and climate of Nevada. These concepts form the basis of a body of knowledge students will refer to when making observations and drawing conclusions about the factors which have influenced the lifeways of the prehistoric, historic, and modern residents of Nevada.

Nevada Educational Standards

The activities in this lesson are designed to help develop the skills that show mastery of the following content standards:

Geography

• Content Standard 5.0: Environment and Society - Students understand the effects of interactions between human and physical systems and the changes in use, distribution and importance of resources- Constraints of the Physical Environment.

Language Arts

• Content Standard 5.0: Students write a variety of texts that inform, persuade, describe, evaluate, or tell a story and are appropriate to purpose and audience.

Materials

- outline map of Nevada one per student
- transparency of outline map of Nevada
- map of North America showing the 50 United States of America
- overhead projector

Word List Word List

climate landlocked topography

Place List

Basin and Range Region Humboldt River Pyramid Lake
Carson River Lake Mead Sierra Nevada
Colorado River Lake Tahoe Truckee River
Columbia Plateau Muddy River Virgin River
Great Basin

Setting the Stage

Display the map of North America. Have students locate Nevada and make observations about the following:

- its location in North America (western region of the United States)
- its location in relation to other states (bordered by Oregon, Idaho, Utah, Arizona and California; Nevada is landlocked)
- its size in relation to other states (*Nevada is the seventh largest state*)

Procedure

Explain to the students that the purpose of this lesson is to review information about Nevada's geography and climate. They will be using this information to observe and draw conclusions about how these factors have affected the past and present lifeways of the people living in Nevada.

Pass out the outline maps of Nevada to students. Using the Nevada outline map transparency as a guide, label the following geographical features on the transparency. Instruct students to label the same features on their maps.

- **A.** Three Regions: explain that there are three main regions of topography (physical features) in Nevada. Label each on the map and review the details about each.
- **Great Basin**: Nevada lies in the Great Basin, which covers almost all of the state. It is a desert area in which are found several mountain ranges that run north to south. This area is also known as the Basin and Range Region.
- **Sierra Nevada**: Nevada's highest mountain range. It extends into the southwestern corner of Nevada.
- Columbia Plateau: an area of deep canyons, which were cut by rivers and streams.
- **B. Nevada Rivers**: Most dry up during Nevada's most arid season, July-November. During this season, many rivers turn into salty mud flats. The prominent rivers are:

- **Carson**: starts in the Sierra Nevada; flows northeast to Lake Lahonton and on past Fallon to the Carson Sink.
- **Humboldt**: Nevada's longest river; found in the northern part of the state; ends in the Humboldt Sink.
- Truckee: starts in Lake Tahoe and flows through Reno into Pyramid Lake.
- **Colorado**: forms the southeastern border of the state. It is dammed by Hoover Dam.
- **Muddy**: starts in Moapa Valley, joined by Meadow Valley Wash near Moapa, and flows into Lake Mead near Overton.
- **Virgin**: begins in Southwest Utah, flows through Arizona into Nevada near Mesquite, and into Lake Mead.
- **C. Nevada's Lakes**: most were formed by past glacial activity (exception Lake Mead).
- Lake Tahoe: located on the Nevada-California border.
- Lake Mead: Nevada's largest lake. It was formed by Hoover Dam.
- Pyramid Lake: is Nevada's largest natural lake.

Discussion Questions

- 1. How would topography affect the migration (movement) of people and animals in Nevada?
- 2. Nevada's climate is one of extremes. There can be wide variations between high and low temperatures, as well as the amount of rain different regions get. What are some ways Nevada's topography can affect its climate? (Sierra Nevada block moisture from the Pacific Ocean; Nevada is located far from large bodies of water that could moderate its temperature).
- 3. How would lack of water affect the way plants, animals, and humans would adapt (adjust) to Nevada's environment?
- 4. What are some ways that humans have changed the environment in Nevada to meet their needs? How do such changes affect other living things?
- 5. How does Nevada's topography and climate affect the way we live?

Closure

Have students write a letter to someone living in another state or country describing Nevada and how it affects the way they live. Their letters should include at least five details about Nevada's geography and climate that would help the reader visualize what Nevada looks like. Their letters should also include five different examples of how the environment in Nevada affects they way they live. Example: "It can get very hot in the summer, so I like to swim and go water skiing to stay cool." When letters are completed, have students read them to the class.

Assessment

Use letters and maps for evaluation of each student's understanding of basic concepts about how Nevada's geography and climate can affect the lifeways of people. As evaluated work is returned to students, have them keep their work in individual portfolios. When the unit is completed, portfolios can be used for further assessment, student presentations, and/or documentation of student mastery of Nevada Standards.

If there are special needs students in class, concept understanding can be assessed by having them dictate their letters to an aide or resource teacher. Letters recorded in this way can be recopied by students for reinforcement of letter writing skills.

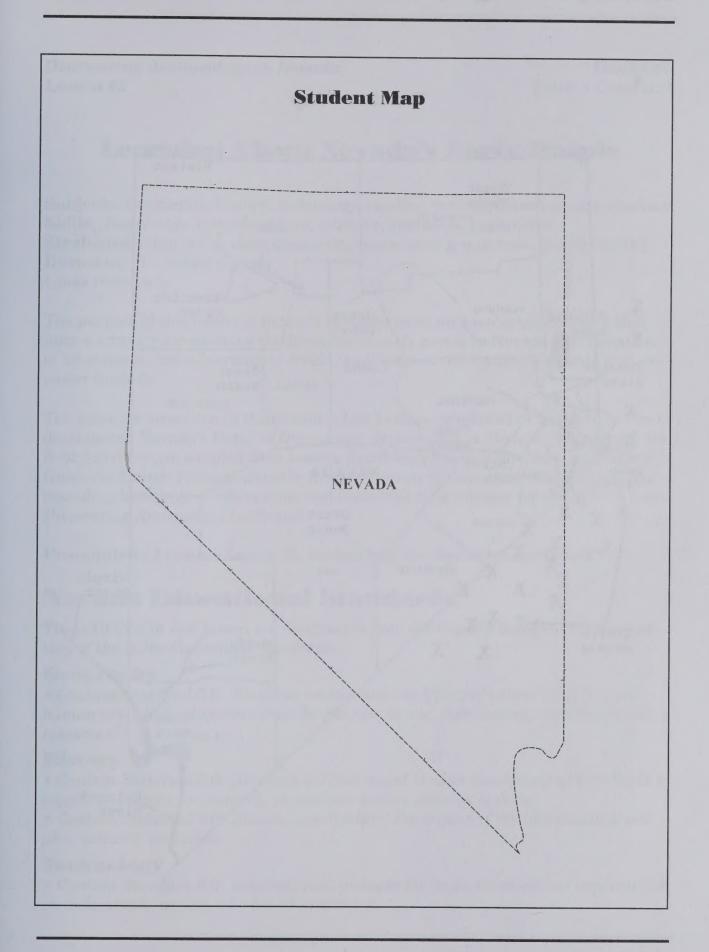
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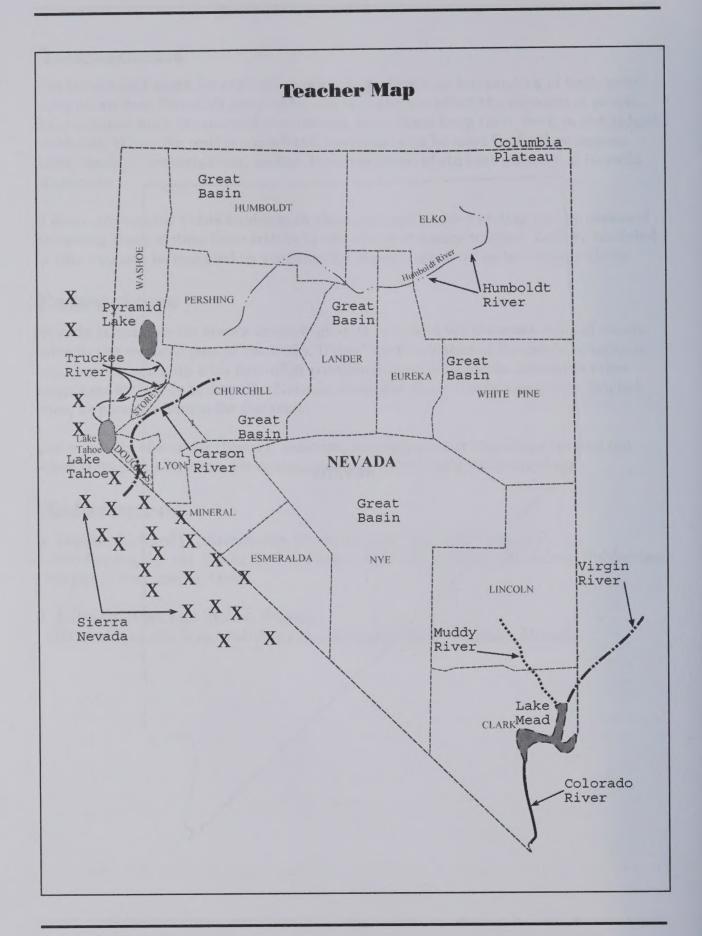
Nevada is Spanish for snowy or snow-clad. It is named for the snow-capped mountains in the western part of the state. Using characteristics of Nevada's geography and climate, come up with five other possible names for Nevada. Research other languages for words to describe Nevada. Consider these words along with English ones, as possible names for the state.

Use a variety of sources (library, internet, museums, local historians) to find out other facts about Nevada. Have students share their facts with the class.

References

- Boehm, Richard G., Armstrong, David G., and Hunkins, Francis P. 1996 *Geography: the World And its People*, Glencoe/McGraw Hill School Publishing Company, Westerville, Ohio.
- Lillegard, Dee, and Stoker, Wayne, 1991 *America the Beautiful: Nevada*, Children's Press, Chicago, Illinois.





Discovering Archaeology in Nevada Lesson #2

Grades 4-7 Related Chapter: 1

Learning About Nevada's Early People

Subjects: Geography, history, technology, reading, writing, listening, and speaking

Skills: Knowledge, comprehension, analysis, synthesis, application

Strategies: Map skills, class discussion, cooperative group work, brainstorming

Duration: 1 - 2 class periods

Class Size: Any

The purpose of this lesson is to teach students basic archaeological concepts that form a strategy for studying the lifestyles of early people in Nevada. Examination of lifestyles includes learning to divide the lifestyles into smaller elements that are easier to study.

The concepts presented in this lesson relate to those presented in Chapter 1, "Understanding Nevada's Past," of *Discovering Archaeology in Nevada*. Some of the student activities are adapted from lessons found in *Intrigue of the Past: A Teacher's Guide for Fourth Through Seventh Grades*. Review of this guide will be helpful in providing background information and instructional strategies for the lessons from *Discovering Archaeology in Nevada*.

Prerequisite Lesson: Lesson #1, particularly the discussion questions.

Nevada Educational Standards

The activities in this lesson are designed to help develop the skills that show mastery of the following content standards:

Geography

• Content Standard 5.0: Students understand the effects of interactions between human and physical systems and the changes in use, distribution, and importance of resources.

History

- Content Standard 2.0: Students will use social studies vocabulary and concepts to engage in inquiry, in research, in analysis and in decision making.
- Content Standard 5.0: Students understand the impact of the interaction of peoples, cultures, and ideas.

Technology

• Content Standard 6.0: Students will evaluate the impact and ethical implications on individuals, society, and the environment.

Reading

- Content Standard 2.0 Students use reading process skills and strategies to build comprehension.
- Content Standard 4.0: Students read to comprehend, interpret, and evaluate informational texts for specific purposes.

Writing

• Content Standard 6.0: Students write with a clear focus and logical development, evaluating, revising, and editing for organization, style tone and word choice.

Listening and Speaking

• Content Standard 10.0: Students participate in discussions to offer information, clarify ideas, and support a position.

Word Lists

Refer to the Word List at the end of each chapter for pronunciations.

Chapter 1 Word List

adaptation: a change made because of new conditions archaeology: the study of past culture by using artifacts

artifact: something made or used by people

culture: what a group learns to believe, do, and make history: the study of the past using written records

lifestyle: the way in which a group of people adapts the way they live to conditions around them

prehistory: the study of people who had no written records raw material: something that people use to make some other thing out of social organization: the way in which people arrange themselves into families and larger groups

Chapter 3 Word List (partial)

climate: the conditions of weather that are typical for an area; climatology is the study of weather and climate

evidence: facts or clues that help someone make a conclusion

inference: a conclusion based on facts

Materials

- Chapter 1 from Discovering Archaeology in Nevada
- Nevada Maps from Lesson #1
- "Defining Lifestyle Elements" worksheet, one per student
- marker board

Setting the Stage

Select two or three objects from your teacher's desk. Show them to your class and have students tell how these objects describe what life in their classroom is like. List student responses on the board. Tell them that these objects tell us things about some of the ways the schoolteacher lives, or the **lifestyle** of the teacher. Ask them to think about objects they might find in a grocery store. What do those objects tell us about a grocer's lifestyle?

Discuss: if people years from now found the same objects, would they come to the same conclusions about the two lifestyles?

Procedure

- 1. Assign students to cooperative groups of three. Each student should have the following materials:
- Their Nevada Maps from Lesson #1
- Chapter 1 from Discovering Archaeology in Nevada
- "Defining Lifestyle Elements" worksheet
- 2. Begin the lesson by telling students that artifacts can tell us a lot about the ways that people adapt to their environment. Review the definition of **inference** and **environment** from Chapter 3. The ways in which they adapt are known as **lifestyles**. Lifestyles are solutions to problems of living such as finding food and shelter, coping with illness and strife, etc. In the past, people found solutions that were suited to their environment. We call these solutions **adaptations** because they allow people to adjust to existing or changing conditions. Artifacts are examples of the adaptations.
- 3. Have students refer to their Nevada maps from Lesson #1. Have them use these maps for reference and answer the following question. What are some things that may have influenced how early people adjusted to their environment? (sources of water, migrations of game, availability of fishing, moving from area to area with seasonal changes)
- 3. Have students take turns reading aloud Chapter 1, pages 1-1 through 1-7. When they reach "Imagining the Future" on page 1-3, use the graphic on page 1-4 to have them answer aloud each question on page 1-5.
- 4. Tell students that they will study lifestyles by dividing them into smaller pieces called elements. Have them read pages 1-7 through 1-14. Have them work in their groups to define the elements, numbers 1 through 4, on the "Defining Lifestyle Elements" worksheet. Each student should fill in the answers on his or her worksheet.

- 5. Review the reading by listing each element on the board with the corresponding definition. Ask students to explain each element and give examples for each definition. Use the discussion questions to enhance understanding.
- *food and raw materials*: getting food and raw materials. What are some ways that environment and climate affect the ways people use to get food and raw materials?
- *tools*: making and using tools. What materials or resources from the environment might be used for tool making?
- *shelter and settlement*: what people choose to live in and the places where they choose to live. What environmental things might influence this?
- *social organization*: how people organize themselves into families and groups. How can the environment affect how people organize themselves into groups?
- 6. After you have listed and discussed the lifestyle elements, have each student answer questions 5-8 on the worksheet.
- 7. Point out that lifestyles change when people face big events like changes in environment, climate, new people coming into a place, migration of animals, and so on.

Closure

Refer to the "Defining Lifestyle Elements" worksheets and list on the board to summarize concepts presented in this lesson. Emphasize that the students will use these concepts as they learn more about the early people of Nevada.

Assessment

Collect "Defining Lifestyle Elements" worksheets from each student. Use them to assess mastery of the concepts presented.

Reference

Smith, Shelly M., Jeanne M. Moe, Kelly A. Letts, Danielle M. Paterson 1993 Intrigue of the Past: A Teacher's Activity Guide for Fourth Through Seventh Grades, U.S. Department of the Interior, Bureau of Land Management.

Name
Defining Lifestyle Elements
Directions: Define each lifestyle element, using your own words. Give examples for each element.
1. food and raw materials:
2. tools:
3. shelter and settlement:
4. social organization:
5. What are some ways that environment and climate affect the ways people use to get food and raw materials?
6. What materials or resources from the environment might be used for tool making?
7. What things might influence types of shelter that people choose? How might the environment influence where people choose to live?
8. How might the environment affect how people organize themselves into groups?

Discovering Archaeology in Nevada Lesson #3 Grades 4-7 Related Chapter: 2

Learning More About Nevada's Early People

Subjects: Geography, history, technology, reading, writing, listening, and speaking

Skills: Knowledge, comprehension, analysis, synthesis, application

Strategies: Map skills, class discussion, cooperative group work, brainstorming

Duration: 2 class periods

Class Size: Any

The purpose of this lesson is to enhance students' understanding of basic archaeological concepts that form a strategy for studying the lifestyles of early people in Nevada. They will apply their knowledge to begin examining lifestyles of past and present people in Nevada.

The concepts presented in this lesson relate to those presented in Chapter 2, "Nevada's People," of *Discovering Archaeology in Nevada*. Some of the student activities are adapted from lessons found in *Intrigue of the Past: A Teacher's Guide for Fourth Through Seventh Grades*. Review of this guide will be helpful in providing background information and instructional strategies for the lessons from *Discovering Archaeology in Nevada*.

Prerequisite Lesson: Lesson #2.

Nevada Educational Standards

The activities in this lesson are designed to help develop the skills that show mastery of the following content standards:

Geography

• Content Standard 5.0: Students understand the effects of interactions between human and physical systems and the changes in use, distribution, and importance of resources.

History

- Content Standard 2.0: Students will use social studies vocabulary and concepts to engage in inquiry, in research, in analysis and in decision making.
- Content Standard 3.0: Students understand the development of human societies, civilizations, empires.
- Content Standard 5.0: Students understand the impact of the interaction of peoples, cultures, and ideas.

Technology

• Content Standard 6.0: Students will evaluate the impact and ethical implications on individuals, society, and the environment.

Reading

- Content Standard 2.0 Students use reading process skills and strategies to build comprehension.
- Content Standard 4.0: Students read to comprehend, interpret, and evaluate informational texts for specific purposes.

Writing

• Content Standard 6.0: Students write with a clear focus and logical development, evaluating, revising, and editing for organization, style tone and word choice.

Listening and Speaking

• Content Standard 10.0: Students participate in discussions to offer information, clarify ideas, and support a position.

Word Lists

Refer to the Word List at the end of each chapter for pronunciations.

Chapter 2 Word List

Archaic: people who lived in North America from about 8,000 years ago until historic times

Euro-American: an American whose past or present relatives were from Europe Paleo-Indian: people who lived in North America 12,000 to 8,000 years ago site: a place or a location; in archaeology, any place where people did something

Chapter 3 Word List (partial)

climate: the conditions of weather that are typical for an area; climatology is the study of weather and climate.

evidence: facts or clues that help someone make a conclusion

inference: a conclusion based on facts

Materials

- Chapter 2 from Discovering Archaeology in Nevada
- "Comparing Five Lifestyles" worksheet #1, one per cooperative group
- "Comparing Archaic Lifestyles" worksheet #2, one per cooperative group
- · marker board

Setting the Stage

Select two or three objects from your teacher's desk. Show them to your class and have students tell how these artifacts describe what life in their classroom is like. List student responses on the board. Review what the students learned in Lesson

2 by asking them which lifestyle elements these objects show? Which elements are missing? Ask if they think archaeologists always find evidence for every element.

Discuss: if people years from now found the same objects, would they make the same conclusions about life in the classroom?

Procedure

- 1. Assign students to cooperative groups of three. Each student should have the following materials:
- Chapter 2 from Discovering Archaeology in Nevada.
- 2. Review the lifestyle elements list from the previous lesson. Pass out one "Comparing Five Lifestyles" worksheet to each group. Point out that lifestyles change when people face big events like changes in environment, climate, new people coming into a place, migration of animals, and so on. Tell the students that each cooperative group will describe the lifestyles of Nevada's early people and identify things that influenced their lifestyles.
- 3. Have each cooperative group turn to Chapter 2 of *Discovering Archaeology in Nevada*. Using pages 2-1 through 2-10 for reference, have each group identify lifestyle elements of Paleo-Indian, Archaic, and agricultural groups. As they identify the elements, each group should record them. (The rest of the chart will be used later in the lesson. They shouldnot be concerned that they do not have much information about agricultural people. They will learn more in a later lesson.)
- 4. Based on their "Comparing Five Lifestyles" worksheets, have students collaborate to write a definition for Paleo-Indian, Archaic, and agricultural lifestyles. Their definitions should be written in their own words and include examples. When this step is completed, have each group share their definitions by reading them to the class. When this step is completed, discuss the following: What things caused Paleo-Indian lifestyles to change to Archaic lifestyles. How did the lifestyles of each group change? What things caused people in southern and eastern Nevada to change to a farming lifestyle? How did their lifestyle change?
- 5. Although groups living in an area may be similar in many ways, their lifestyles may vary slightly from one another. Their lifestyles allow them to adapt to the particular environments in which they live. For instance, when Euro-Americans arrived in Nevada, there were four Native American groups in Nevada. They were the Washoe, Northern Paiute, Western Shoshone, and Southern Paiute. Although these four groups had similar Archaic lifestyles, each had a lifestyle that was slightly different from the others because it was best suited to their particular environment.

Have cooperative groups read pages 2-10 through 2-14 in Chapter 2 and begin filling our the "Comparing Archaic Lifestyles" worksheet. From their answers have the

students begin to identify some differences between each group. Discuss what the possible reasons were for the differences. Each group should record the differences and reasons for the differences on the "Comparing Archaic Lifestyles" worksheet #2. (They can add to this worksheet when they find more information in later chapters.)

- 6. In the 1800's, Euro-Americans living in the eastern and central parts of the United States started moving west. Direct cooperative groups to read pages 2-14 through 2-15 of Chapter 2 to discover how this migration of people affected the Archaic lifestyles of the Native Americans. What things influenced changes in lifestyles? Have cooperative groups begin the "Comparing Five Lifestyles" worksheet section for Euro-Americans, African Americans, and Chinese. They will complete these sections when they read Chapter 10 during Lesson #8. As these groups moved to Nevada, new towns and communities emerged. Have each group describe what the social organization might be like in these new settlements.
- 7. Direct cooperative groups to fill out their "Comparing Five Lifestyles" worksheets by completing the section about their own families. In this section they should give examples of lifestyles adopted by their families to solve the problems and needs of daily living. What things influence their lifestyles? When the groups complete this section, have them share their responses with the class.

Closure

Refer to the "Comparing Lifestyles" worksheets and list on the board to summarize concepts presented in this lesson. Emphasize that the students will use these concepts as they learn more about the early people of Nevada.

Assessment

Collect both "Comparing Lifestyles" worksheets from each cooperative group. Use them to assess mastery of the concepts presented.

Extensions

Using their "Comparing Five Lifestyles" worksheets for reference, have students write a short story about the life of a child living in Nevada 10,000 years ago.

Reference

Smith, Shelly M., Jeanne M. Moe, Kelly A. Letts, Danielle M. Paterson 1993 Intrigue of the Past: A Teacher's Activity Guide for Fourth Through Seventh Grades, U.S. Department of the Interior, Bureau of Land Management. Appendix 2-18

Comparing Five Lifestyles

Lifestyle Elements	Paleo-Indian People	Archaic People	Agricultural People	Euro-Americans African- Americans & Chinese	Our Families
Food & Raw Materials					
Tools					
Settlement & Shelter				Sharpariformation of the state	Standard out
Social Organization		Configuration of the configura	CAPPERSON.	THE SHAPE OF THE S	The specification of the speci

Teacher Lesson Plans

Appendix 2-19

Comparing Archaic Lifestyles

Lifestyle Elements	Washoe	Southern Paiute	Northern Paiute	Western Shoshone
Food & Raw Materials				
Tools				
Settlement & Shelter				
Social Organization				

What are some differences between the groups?

Discovering Archaeology in Nevada Lesson #4 Grades 4-7 Related Chapter: 3

Learning How to Pin Down the Past

Subjects: Geography, history, technology, reading, writing, listening, and speaking

Skills: Knowledge, comprehension, analysis, synthesis, application

Strategies: Map skills, class discussion, cooperative group work, brainstorming

Duration: 2 class periods

Class Size: Any

The purpose of this lesson is to teach students basic archaeological concepts that form a strategy for studying the lifestyles of early people in Nevada. Examination of lifestyles includes learning to identify and classify various types of archaeological evidence in a way that helps archaeologists draw conclusions about the lifestyles of early people.

The concepts presented in this lesson relate to those presented in Chapter 3, "Pinning Down the Past," of *Discovering Archaeology in Nevada*. Some of the student activities are adapted from lessons found in *Intrigue of the Past: A Teacher's Guide for Fourth Through Seventh Grades*. Review of this guide will be helpful in providing background information and instructional strategies for the lessons from *Discovering Archaeology in Nevada*.

Nevada Educational Standards

The activities in this lesson are designed to help develop the skills that show mastery of the following content standards:

Geography

• Content Standard 5.0: Students understand the effects of interactions between human and physical systems and the changes in use, distribution, and importance of resources.

History

- Content Standard 2.0: Students will use social studies vocabulary and concepts to engage in inquiry, in research, in analysis and in decision making.
- Content Standard 3.0: Students understand the development of human societies, civilizations, empires.
- Content Standard 5.0: Students understand the impact of the interaction of peoples, cultures, and ideas.

Technology

• Content Standard 6.0: Students will evaluate the impact and ethical implications on individuals, society, and the environment.

Reading

- Content Standard 2.0: Students use reading process skills and strategies to build comprehension.
- Content Standard 4.0: Students read to comprehend, interpret, and evaluate informational texts for specific purposes.

Writing

• Content Standard 6.0: Students write with a clear focus and logical development, evaluating, revising, and editing for organization, style tone and word choice.

Listening and Speaking

• Content Standard 10.0: Students participate in discussions to offer information, clarify ideas, and support a position.

Word Lists

Refer to the Word List at the end of each chapter for pronunciations.

Chapter 3 Word List

climate: the conditions of weather that are typical for an area; climatology is the

study of weather and climate

evidence: facts or clues that help someone make a conclusion extinct: something which no longer exists in living form

inference: a conclusion based on facts

midden: a pile of trash

playa: a flat, dried out lake bed

Additional Words from page 3-2

botanists: scientists who study *modern* plants paleobotanists: scientists who study *ancient* plants

zoologists: study *modern* animals paleontologists: study *ancient* animals

Materials

- kitchen tools, a few beans, and popcorn kernels
- Chapter 3 from Discovering Archaeology in Nevada
- "Archaeologist's Helpers" worksheet, one per cooperative group
- Evidence Bags (brown paper sacks), one per cooperative group
- Evidence Bag pieces, cut apart, separated, and placed into Evidence Bags
- "Evidence Sheets" worksheet, one per cooperative group
- · marker board

Preparation of Evidence Bags: Prior to beginning the lesson, cut the "Evidence Bag Pieces" apart. Place pieces with the same number together into a set and put

each set in a brown paper bag. Mark the front of the bag with the set's number. If you have more than six cooperative groups, copy and use the sets more than once.

Key to "Evidence Bag Pieces"

#1	Paleo-Indians	#4	Miners
#2	Ranchers	#5	Loggers

#3 Archaic People #6 Honeymooning Tourists

Setting the Stage

Select several tools from your kitchen or teacher's lounge to use as example of food preparation. Add to this some beans and popcorn kernels. Show them to your class and have students tell how these objects describe what modern food preparation is like. List student responses on the board. Ask if all of these objects are artifacts. (Yes. Artifacts are objects that were made or used by people.) Archaeology is the study of artifacts of past peoples.

• Ask how an archaeologist might find out more information about the beans and corn. Could the archaeologist find help from someone else?

Procedure

- 1. Have students resume their cooperative groups of three from Lesson 3. Each group should have the following materials:
- Chapter 3 from Discovering Archaeology in Nevada
- "Archaeologist's Helpers" worksheet
- 2. Summarize the information from Lessons 2 and 3. Emphasize that artifacts provide clues that we call "evidence" for archaeologists about the lifestyles of early people. In addition to the artifacts, archaeologists also use other types of evidence to learn about early lifestyles. This evidence is usually about the environment.

Have students work in cooperative groups to read pages 3-1 through 3-11. Have them refer to the "Archaeologist's Helpers" graphic on page 3-6. These helpers study different subjects: paleobotany, paleontology, geology, and climatology. (List these on the board adjacent to lifestyles list.) Each group should fill out an "Archaeologist's Helpers" worksheet. Have students use the reading to decide what each subject refers to. For each subject word, have them give examples of how it would provide information about the lifestyles of early people. When they are done review their answers with the entire class.

- Paleobotany: the science of ancient plants
- Paleontology: the science of ancient animals

- Geology: the study of the earth's landscape and how it changes over time
- Climatology: the science of climate
- 4. Have students take turns reading the rest of Chapter 3 to the whole class. Enhance students' comprehension by having them focus on details that give examples of paleobotany, paleontology, geology, and climatology. Have them tell how each example might suggest a lifestyle of early people. To further enhance comprehension, discuss questions as they appear in the text.
- 5. At the conclusion of reading Chapter 3, give each cooperative group an "Evidence Bag" and an "Evidence Sheet" worksheet. Each bag contains slips of paper that describe various pieces of archaeological evidence collected at an archaeological site. Each group should classify their evidence by listing each piece in the appropriate column on their evidence sheet. After the evidence has been sorted, have students draw conclusions about the lifestyles of the people of their site by listing possible lifestyle characteristics in the lifestyles section at the bottom of their worksheet. Students will use these characteristics to write a description of the lifestyles of the people of their site. When the descriptions are completed, have groups read them to the class.

Closure

Refer to the "Lifestyles" and "Types of Evidence" lists on the board to summarize concepts presented in this lesson. Emphasize that the students will use these concepts as they learn more about the early people of Nevada.

Assessment

Collect the "Archaeologist's Helpers" worksheet and "Evidence Sheet" from each cooperative group. Use them to assess mastery of the concepts presented.

Extensions

Have students make a time capsule representing life in their hometown at the present time. The time capsule should include artifacts along with botanical, animal, geological and climatological evidence that can be analyzed by people living in the future.

Reference

Smith, Shelly M., Jeanne M. Moe, Kelly A. Letts, Danielle M. Paterson 1993 Intrigue of the Past: A Teacher's Activity Guide for Fourth Through Seventh Grades, U.S. Department of the Interior, Bureau of Land Management.

ame
Archaeologist's Helpers Worksheet
ead pages 3-1 through 3-11. Refer to the "Archaeologist's Helpers" graphic on page 6. Use it to help you decide what each subject refers to. Write your idea next to ne word. For each subject, give examples of how it would provide information about ne lifestyles of early people.
otany
aleobotany
oology
aleontology

Evidence Bag Pieces

#1 site located on ancient lake bed	#2 a bent spur
#1 extinct flower pod	#2 rusted coffee pot
#1 dried seeds	#2 a map showing grazing land on a playa
#1 bone needle	#2 alfalfa seed
#1 pieces of chipped stone	#2 a piece of cowhide chaps
#1 fluted stone point	#2 cattle brand
#1 mammoth bone	#2 nail
#3 stone point	#5 cot
#3 stone grinding tool	#5 rusted saw
#3 site on the edge of a dry river	#5 train schedule for loading lumber
#3 a food storage pit	#5 wood cores from pine trees
#3 extinct flower pod	#5 rusted rifle
#3 deer antler	#5 empty flour bags
#3 piece of a gathering basket	#5 rusted coffee pot
#4 pick axe	#6 hotel soaps
#4 old newspaper dated 1876	#6 theater program
#4 gold pan	#6 dried bouquet of roses
#4 lantern	#6 keys to a rental car
#4 map showing mountain mine location	#6 camera case
#4 cast iron pots	#6 poker chips
#4 bag of pinto beans	#6 loose grains of rice

Lesson	#4,	Worksheet	#3
Group !	Mer	nbers	

Evidence Sheet

Directions: Classify the materials in your evidence bag by listing each item in the correct category.

Artifacts	Paleontology	Paleobotany	Geology	Climatology
	The Control of the Control	Seq = 850	and a strong of	1000000
	broads	110 5-1	No. of Contract	
		1000		do, man Ph
		Test and Tes		and or other districts
	7	1 1 3	The paid	- to the latest
	Address of the day	inst (i)	The state of the state of	to an animala
	Medical paragraph	Control Total	1 1 1 1 3 1	ar (OLDER
	7.16		1000	
	Bank modern			700 (80)

Food and Raw Materia	als:	
Tools:		
Shelter and Settlemer	t:	
Social Organization:		

Discovering Archaeology In Nevada Lesson #5 Grades 4 - 7 Related Chapters: 4 and 5

Learning About Prehistoric Lifestyles

Subjects: Geography, history, reading

Skills: Knowledge, comprehension, analysis, application

Strategies: Class discussion, cooperative group work, drawing

Duration: 2 to 3 class periods

Class size: Any

The purpose of this lesson is to have students apply the archaeological concepts introduced in Lesson #2 to learn about the lifestyles of three prehistoric groups found in Nevada: hunter-gathers, the Ancestral Pueblo people, and the Fremont.

The concepts presented in this lesson relate to those presented in Chapters 4, "Hunting and Gathering," and 5, "Early Farmers," of *Discovering Archaeology in Nevada*. Some of the activities in this lesson are adapted from lessons found in *Intrigue of the Past: A Teacher's Guide for Fourth Through Seventh Grades*. Review of this guide will be helpful in providing background information and instructional strategies for the lessons from *Discovering Archaeology in Nevada*.

Nevada Educational Standards

The activities in this lesson are designed to help develop the skills that show mastery of the following content standards.

Geography

• Content Standard 5.0: students understand the effects of interactions between human and physical systems and the changes in use, distribution, and importance of resources.

History

- Content Standard 2.0: Students will use social studies vocabulary and concepts to engage in inquiry, in research, in analysis and in decision making.
- Content Standard 3.0: Students understand the development of human societies, civilizations, empires.
- Content Standard 3.51: Students define hunter-gatherer.
- Content Standard 3.8.5: Students describe the lifestyles of Nevada's Desert Archaic people.

Reading

• Content Standard 2.0: Students use reading process skills and strategies to build comprehension.

• Content Standard 4.0: Students read to comprehend, interpret, and evaluate informational texts for specific purposes.

Listening and Speaking

• Content Standard 10.0: Students participate in discussions to offer information, clarify ideas, and support a position.

Materials

- Chapters 4 and 5 from Discovering Archaeology in Nevada
- Lesson #3 "Comparing Five Lifestyles" worksheet, one per cooperative group
- Lesson #5 "Comparing Three Lifestyles" worksheet, one per cooperative group four-foot lengths of butcher paper, one sheet per cooperative group

Word Lists

Refer to the Word List at the end of each chapter for pronunciations.

Chapter 4 Word List

extinct: something which no longer exists

hunter-gatherer: person who moves from place to place searching for food

landscape: a stretch of land that is viewed

resource: a supply of something important which people can use

seasonal round: the yearly pattern of moving from place to place in search of food

toolstone: a rock suitable for making flaked stone tools

Chapter 5 Word List

ancestor: a person or group to whom one is related

equinox: one of two days in the year when the sun rises and sets exactly in the middle between the most northern and most southern places.

figurine: a small statue or figure, made from clay, glass or stone

kiva: an underground room used for ceremonial purposes by modern Pueblo people and by Ancestral Pueblo people

plaza: a central open space for public use; a town square

pueblo: a many-roomed structure built above ground, sometimes with more than one story (but Pueblo with a capital P refers to the people who construct and live in pueblos in the American Southwest)

rock art: a design carved or painted on rock

solstice: one of two days in the year when the sun rises and sets the farthest to the south or to the north.

Setting the Stage

Direct the students to rejoin their Lesson #4 cooperative groups. Return each group's "Comparing Five Lifestyles" worksheet. Using their worksheets as references, review the information by having each group answer the following questions:

- What are lifestyles? (Solutions for the problems of living. They show how people adjust to the existing or changing conditions of their environment)
- What are the elements we look at when determining the lifestyles of people? (Food and raw materials, tools, shelter and settlements, social organization).
- What are artifacts? How do artifacts help identify lifestyles? (Objects that remain after the people who used them have left. Artifacts provide clues to how people used the resources available to them.)

Discuss the group answers to the questions. Explain that in today's lesson they will be using another "Comparing Lifestyles" worksheet to help them learn about three of Nevada's prehistoric people: hunter-gathers, the Ancestral Pueblo people, and the Fremont.

Procedure

- 1. Distribute one Lesson #5 "Comparing Three Lifestyles" worksheet to each cooperative group. Instruct each group to read Chapter 4, "Hunting and Gathering." As they read they should identify and record the lifestyle elements of each group in the appropriate place on their worksheets.
- 2. Repeat for Chapter 5, "Early Farmers." When the worksheets are completed, have the groups use the information to answer the following questions, found on the bottom of the "Comparing Three Lifestyles" worksheet:
- What environmental things might have affected the lifestyles of each group?
- What are the artifacts that provide clues about the lifestyles of each group?
- How are the groups alike? How are they different?
- What things might have influenced differences between groups?
- 3. Once the groups complete their worksheets and questions, they should get a four-foot length of butcher paper. Using the information from their worksheets, each group should make a poster illustrating the lifestyles of the hunter-gatherers, the Ancestral Pueblo people, and the Fremont. Illustrations should show artifacts that are examples of food and raw materials, tools, shelter and settlement, and social organization for each group.
- 4. When all of the groups have completed their posters, have each group explain how their illustrations show the lifestyles of the hunter-gatherers, the Ancient Pueblo people, and the Fremont. Have the groups tell how the environment may have influenced the lifestyles of these groups of people.

Closure

Referring to the illustrations on student posters, summarize the characteristics of the lifestyles of the hunter-gatherers, Ancestral Pueblo people, and the Fremont.

Review the environmental factors that may have influenced each group's lifestyles. Emphasize that archaeologists look at these adaptations to try to determine the lifestyles of early people.

Assessment

Direct each group to staple their "Comparing Three Lifestyles" worksheets to their posters. Use the posters and worksheets to assess the mastery of concepts presented. Put the posters on display in your classroom.

Extensions

Have the students pretend they have taken a time machine back in time to visit a hunter-gather, Ancestral Pueblo people, or Fremont community. They should write a letter back to a present-day friend, describing what they see and experience.

Have students write paragraphs summarizing what they have learned in Chapters 1 through 5 of *Discovering Archaeology in Nevada*. Their summaries should utilize vocabulary from the word lists found with each Chapter.

Reference

Smith, Shelly M., Jeanne M. Moe, Kelly A. Letts, Danielle M. Paterson 1993 Intrigue of the Past: A Teacher's Activity Guide for Fourth Through Seventh Grades, U.S. Department of the Interior, Bureau of Land Management.

Comparing Three Lifestyles

Hunter-gatherers	Ancestral Pueblo people	Fremont
	Hunter-gatherers	Hunter-gatherers Ancestral Pueblo people

- 2) What artifacts provide clues about the lifestyles of each group?
- 3) How are the groups alike? How are they different?
- 4) What things might have influenced the differences between groups?

Discovering Archaeology in Nevada Lesson #6 Grades 4 - 7 Related Chapter: 6

What Artifacts Can Tell Us

Subjects: Geography, history, language arts, listening, and speaking **Skills**: Knowledge, comprehension, analysis, synthesis, application

Strategies: Class discussion, drawing, writing

Duration: 1 to 2 class periods

Class Size: Any

The purpose of this lesson is to familiarize students with the kinds of artifacts associated with prehistoric groups. It teaches students the importance of these artifacts as part of a body of evidence for answering questions about prehistoric lifestyles.

The concepts covered in this lesson relate to those presented in Chapter 6, "Toolkit Technology," of Discovering Archaeology in Nevada. Some of the student activities are adapted from lessons found in Intrigue of the Past: A Teacher's Guide for Fourth Through Seventh Grades. Review of this guide will be helpful in providing background information and instructional strategies for the lessons from Discovering Archaeology in Nevada.

Nevada Educational Standards

The activities in this lesson are designed to help develop the skills that show mastery of the following content standards:

Geography

• Content Standard 5.0: Students understand the effects of interactions between human and physical systems and the changes in use, distribution, and importance of resources.

History

• Content Standard 3.0: Students understand the development of human societies, civilizations, empires.

Writing

• Content Standard 5.0: Students write a variety of texts that inform, persuade, describe, evaluate, or tell a story and are appropriate to purpose and audience.

Listening and Speaking

• Content Standard 10.0: Students participate in discussions to offer information, clarify ideas, and support a position.

Materials

- marker board and markers
- white index cards, 6 per student
- crayons and/or colored pencils

Word List

Refer to the Word List at the end of each chapter for pronunciations.

Chapter 6 Word List

composite: made of two or more parts

cradleboard: a flat tray for carrying babies. It can be placed in a tree for safekeeping while the baby's mother is busy. The board usually has a sunshade attached.

hafted: attached to a handle; prehistoric stone tools such as knife blades, axes, and scrapers were often bound, or hafted, to wood or bone handles.

quiver: a long, narrow pouch used to carry arrows and other hunting tools

scraper: a stone tool. The edge is used for various scraping tasks such as removing the hair from animal hide or removing bark from woody plants.

tinder: a small amount of dry grass and twigs that burns easily

toolstone: a rock suitable for making flaked stone tools.

tule: a tall reed that grows in marshes. It is used by Native Americans to make boats and other items.

winnow: to separate seeds from husks

Setting the Stage

Instruct the students to recall what they learned about the lifestyles of hunter-gatherers, the Ancestral Pueblo people, and the Fremont. Have them give examples of the artifacts of these groups. As students volunteer answers, list answers on the board. When all answers have been listed, discuss the following questions:

- What do these artifacts tell us about prehistoric people?
- How do resources and geography affect the types of artifacts we find?

Explain that prehistoric people left a wide variety of artifacts that tell us much about their lifestyles. These artifacts can be classified by use into toolkits. Tell the class that in this lesson they will be looking at the artifacts that make up several prehistoric toolkits.

Procedure

1. Make three lists on the board. Label the first list *hunting*, the second list *fishing*, and the third list *gathering*. Select one student to be in charge of each list. Have the rest of the class take turns reading chapter 5 aloud. As the chapter is read, have students identify and classify artifacts by instructing students at the board to

record each artifact by category. As the lists grow, discuss the following:

- What job is each one of these artifacts used for? Could each be used for more than one job?
- What resources did people use to make these artifacts?
- How would the location of resources affect where people decided to make a shelter or settle?
- Is it possible that one type of artifact could be used in more then one toolkit?
- 2. When the students have read the chapter and completed their lists, distribute 6 index cards to each student. They will use these cards to describe a prehistoric tool kit.
- The first card will be the title card on which the name and purpose of the toolkit will be written.
- Each succeeding card will show one artifact from the kit. On one side of the card, students will draw a picture of the artifact. On the other side, students will write a description of the artifact that includes the job it performs, what it is made of, and what the artifact tells us about the lifestyles of the prehistoric people who used it.
- Have students refer to the lists on the board for ideas about what to put in their toolkits.
- To ensure an even distribution of toolkits, have students count off by threes. All the ones will make a hunting toolkit; the twos will make a fishing toolkit; the threes will make a gathering toolkit.
- 3. When all the students have completed their toolkits, have the students trade their artifact cards with someone else. Each will keep the toolkit title card. Have each student tell about the artifacts they received and decide what type of toolkit the artifacts came from.

Closure

Call on different students to summarize what kinds of artifacts prehistoric people used for hunting, fishing, and gathering. Emphasize that these artifacts are important because of what they tell us about prehistoric people.

Assessment

Collect index card toolkits from the students and use them to assess individual mastery of the concepts presented.

Extensions

• Have students make dioramas showing prehistoric people involved in hunting, fishing, or gathering. Dioramas should include several artifacts related to the activity depicted.

• List items that would be found in a modern day hunting or fishing toolkit. Compare the function of each tool to a tool from a prehistoric toolkit. Are there similarities between the functions of tools? How are changes in the ways we do things reflected by the tools we use?

Reference

Smith, Shelly M., Jeanne M. Moe, Kelly A. Letts, Danielle M. Paterson 1993 Intrigue of the Past: A Teacher's Activity Guide for Fourth Through Seventh Grades, U.S. Department of the Interior, Bureau of Land Management. Discovering Archaeology in Nevada Lesson # 7 Grades 4 - 7 Related Chapters: All

Artifacts: Treasures to be Protected

Subjects: History, writing, listening, and speaking **Skills**: Knowledge, comprehension, analysis, synthesis **Strategies**: Working with partners, class discussion

Duration: 1 class period

Class Size: Any

The purpose of this lesson is to use the concepts of sequencing and chronology to raise student awareness about artifacts as archaeological resources and the importance of protecting them.

The concepts presented in this lesson relate to those presented in all chapters of *Discovering Archaeology in Nevada*. The activities are adapted from the Lesson 5, "Chronology: The Time of My Life," found in *Intrigue of the Past: A Teacher's guide for Fourth through Seventh Grades*. Review of the *Intrigue* guide will be helpful in providing background information and instructional strategies for the lessons from *Discovering Archaeology in Nevada*.

Nevada Educational Standards

The activities in this lesson are designed to help develop the skills that show mastery of the following content standards:

History

• Content Standard 1.0: Students use chronology to organize and understand the sequence and relationship of events.

Writing

• Content Standard 6.0: Students write with a clear focus and logical development, evaluating, revising, and editing for organization, style, tone and word choice.

Listening and Speaking

• Content Standard 10.0: Students participate in discussions to offer information, clarify ideas, and support a position.

Word List

Use the word list in Lesson 5, "Chronology: The Time of My Life," from Intrigue of the Past: A Teacher's Activity Guide for Fourth through Seventh Grades.

- chronology
- data
- stratigraphy
- timeline

Materials

- strips of 2" x 8" paper; ten for each student.
- 2 or 3 index card toolkits made by students in Lesson #4.

Setting the Stage

Combine 2 to 3 toolkits made by students in Lesson #6. Display this array of prehistoric tools to the class. Discuss the following question: What did you learn from these artifacts? (Artifacts help us learn about the lifestyles of early people.)

Next, remove 3 or 4 tools from the display. Discuss the following question: If these tools or artifacts were never found, how would it affect your interpretation of the lifestyles of the people who made and used them? (We wouldn't have as much information from which to draw conclusions about their lifestyles; our knowledge would be incomplete.)

Emphasize that in this lesson students will learn about the importance of preserving archaeological sites and artifacts because they are the resources that provide the information that helps us understand our past.

Procedure

- 1. Distribute 10 paper strips to each student. Have students think of ten important events in their life and illustrate each of these events by drawing personal artifacts associated with the occasions on the paper strips. For example, they could use a baby rattle for birth or an apple for first day of school. Limit illustrations to one event per strip.
- 2. When they have completed their strips, have the students shuffle and exchange them with a partner. Then instruct the students to try to arrange their partner's strips in correct chronological order based on the clues given by the artifacts illustrated on each strip. When students think they have their chronologies completed, their partners will check them for accuracy. When all partners have completed this step, discuss the following:
- What clues did the artifacts give you about putting events into correct order?
- Were you able to order events and make interpretations correctly? Why or why not?
- If one or more artifacts were left out, how would this have affected your ability to put the strips of your partner's life into correct order?
- Similarly, if one or more artifacts were left out of the toolkits on display, how

would this affect how you interpreted the lifestyles and events of ancient people?

3. After discussing questions in step #2, have partners collaborate to write a paragraph in response to the following:

• Think about the impact of missing artifacts on our ability to interpret the lifestyles and events of ancient people. What conclusion can you make about the importance of keeping artifacts in place on a site? (i.e., not taking them from a site or moving artifacts within a site). How do missing artifacts affect our ability to understand ancient people?

When students have completed their paragraphs, have them read their conclusions to the class. Discuss student responses to questions, highlighting those responses that communicate the importance of not tampering with archaeological remains.

Closure

After the students have read their paragraphs, emphasize that loss of artifacts means loss of information. It is important to leave archaeological sites undisturbed. They are important resources in understanding our past.

Assessment

Use completed paragraphs as a basis for assessment.

Extension

Have students work in partners to create posters advertising the importance of preserving archaeological sites. Put the posters on display in the classroom or school.

Reference

Smith, Shelly M., Jeanne M. Moe, Kelly A. Letts, Danielle M. Paterson 1993 Intrigue of the Past: A Teacher's Activity Guide for Fourth Through Seventh Grades, U.S. Department of the Interior, Bureau of Land Management, pp. 22-26. Discovering Archaeology in Nevada Lesson #8

Grades 4 - 7 Related Chapters: 7, 8, 9, 10

Historical Archaeology In Nevada

Subjects: History, geography, reading, listening and speaking, writing (extension

activity)

Skills: Knowledge, comprehension, analysis, application

Strategies: Cooperative groups **Duration**: 4 to 5 class periods

Class Size: Any

The purpose of this lesson is to have students study and apply the techniques of historical archaeology to learn about historical periods in Nevada's past.

The concepts and information presented in this lesson relate to Chapters 7, "Explorers, Trappers, and Early Trails;" 8, "The Emigrant Trail, the Goldrush, and the Comstock Bonanza;" 9, "Trails to Rails;" and 10, "Nevada Settlers" from *Discovering Archaeology in Nevada*. Some activities are adapted from lessons found in *Intrigue of the Past: A Teacher's Guide for Fourth Through Seventh Grades*. Review of this guide will be helpful in providing background information and instructional strategies for the lessons from *Discovering Archaeology in Nevada*.

Nevada Educational Standards

The activities in this lesson are designed to help develop the skills that show mastery of the following content standards.

History

• Content Standard 1.0: Students use chronology to organize and understand the sequence and relationship of events.

Geography

• Content Standard 5.0: Students understand the effects of interactions between human and physical systems and the changes in use, distribution, and importance of resources.

Reading

• Content Standard 4.0: Students read to comprehend, interpret, and evaluate informational texts for specific purposes.

Listening and Speaking

• Content Standard 10.0: Students participate in discussions to offer information, clarify ideas, and support a position.

Writing (extension activity)

- Content Standard 5.0: Students write a variety of texts that inform, persuade, describe, evaluate, or tell a story and are appropriate to purpose and audience.
- Content Standard 6.0: Students write with a clear focus and logical development, evaluating, revising, and editing for organization, style, tone, and word choice.

Word List

Refer to the Word List at the end of each chapter for pronunciations.

artifact: something made or used by people

historical archaeology: the science of studying past cultures using their artifacts and written records

written record: something written by someone about him or herself, another person or persons, a place, or an event

Chapter 7 Word List

emigrant: someone who goes to live in a new place

immigrant: someone who comes from a distant place to live and work in a new place

Chapter 8 Word List

bonanza: a rich discovery of ore

hard rock mining: mining that involves digging rock out of the ground

ore: metal that can be mined

pipeline: a pipe that liquid flows through from one place to another

placer mining: a type of mining that uses lots of water to wash the dirt and gravel away from the ore

privies: outdoor toilets, also called outhouses; one outhouse is a privy

prospect: a place where miners looked to see if there were any signs of valuable ore; people who do this are called prospectors

Chapter 9 Word List

immigrant: someone who comes from a distant place to live and work

telegraph: a way of sending messages across wires

transcontinental: crossing the continent

Chapter 10 Word List

Euro-American: an American whose past or present relatives were from Europe homestead: a piece of land that that someone gets from the government and builds on or improves. Usually they farm it. A homesteader is a person who lives on this land. (verb) to settle on land from the government and improve it, usually by farming.

irrigation: the act of bringing water to something dry saloon: a bar or place that serves alcoholic drinks

Materials

- Discovering Archaeology in Nevada, Chapters 7, 8, 9, and 10, one set for each student
- Nevada Map from Lesson #1
- "Comparing Five Lifestyles" worksheet from Lesson #3
- 4-foot lengths of white butcher paper, one piece for each cooperative group
- writing and drawing implements

Setting the Stage

Have students give examples of artifacts left by prehistoric people in Nevada (tools, baskets, rock art, and so on). List responses on the board and entitle the list artifacts. Emphasize that these artifacts are important archaeological resources because they provide the evidence that archaeologists need to make conclusions about the lifestyles of ancient people.

Continue by explaining that in this lesson the students will look at another type of evidence that helps us understand our past. This evidence is called a written record. Start a second list on the board adjacent to the first and entitle it *written records*. A written record is any record that gives facts about past events. Ask students to give examples of what these records might be. (books, newspapers, photographs, stories, oral histories, and so on) List responses on the board.

Written records provide additional evidence when we study historical archaeology. Historical archaeologists study the lifestyles of people during periods of history when records were produced. The records tell us about people during that time. Sometimes the written records leave out information that we can find out about through studying the artifacts left by the people. Explain that in this lesson, students will create a timeline that covers historical periods in Nevada's past. They will identify and illustrate the artifacts and sources of written records that provide information about the historical period represented by their timeline.

Procedure

- 1. Divide the class into cooperative groups of four. Give each group copies of Chapter 7 from *Discovering Archaeology in Nevada*. Have the class read the chapter, and make a list of the important events for that chapter. Once they have completed the chapter, list the events on the board. Alternatively, have members of cooperative groups take turns reading the chapter aloud to the class. As students read, list the important events from the chapters in chronological order on the board.
- 2. When the students have finished reading the chapter, pass out one piece of butcher paper to each cooperative group. Instruct them to use the chronological information from the board to make a timeline showing important events in Nevada's

past. They should start with the early exploration by Spanish and Mexican people in 1776. Other important dates to include on the timeline are 1820s—fur traders explore Nevada; 1840s—arrival of emigrant settlers; 1860s—Transcontinental Railroad built. Students can augment dates on their timeline using other events and dates from Chapters 7 through 10.

In addition to labeling dates on their timelines, have students illustrate each time period with pictures of the artifacts and written documents from the era.

At this time they can add to their "Comparing Five Lifestyles" worksheet from Lesson #3.

- 3. Repeat process for Chapters 8, 9, and 10.
- 4. As a final piece to their time lines, have students mark routes of migration and the location of historical settlements on their Nevada Maps from lesson #1. These maps can be attached to the timeline upon its completion.
- 5. When all students have finished their timelines, have cooperative groups present them to the class by summarizing the important events depicted on their timelines. They should tell about the artifacts and written records that gave them information about Nevada's historic period.

Closure

Conclude lesson by emphasizing the importance of written records as a way to understand our historical past. They are important archaeological resources that must be carefully preserved.

Assessment

Use timelines and class presentations to assess learning.

Extension

Have each cooperative group imagine that they are reporters who have been sent back to a time in Nevada's historical past. Assign to each group a newspaper topic that they will write an article about. Encourage students to include references to customs, material goods, food, government, or anything else that will give the reader an understanding of lifestyles during Nevada's historical period.

When groups have completed their articles, use them to create a historical newspaper. Have students augment the paper by designing advertisements and want ads that would be appropriate for the time.

Possible article topics:

- Mormon Settlements in Nevada
- Spanish People Seek Supply Routes in Southern Nevada
- Wagon Train Life Challenging On the Emigrant Trail
- Gold Fuels the Dreams of Many
- Virginia City, Boomtown of the West
- Transcontinental Railroad Opens the Doors of the West
- Emigration Going Strong
- Chinese Emigration Enriches Nevada
- Farms and Ranches Enrich Nevada's Economy

Reference

Smith, Shelly M., Jeanne M. Moe, Kelly A. Letts, Danielle M. Paterson 1993 Intrigue of the Past: A Teacher's Activity Guide for Fourth Through Seventh Grades, U.S. Department of the Interior, Bureau of Land Management. Discovering Archaeology in Nevada Lesson #9 Grades 4 - 7 Related Chapters: All

Preserving Our Past

Subjects: Writing, listening, and speaking

Skills: Knowledge, comprehension, analysis, application

Strategies: Class discussion, brainstorming, working with partners

Duration: 1 to 2 class periods

Class Size: Any

The purpose of this lesson is to have students use problem solving to figure out ways to preserve our archaeological resources. Additional lessons related to archaeological conservation can be found in *Intrigue of the Past: A Teacher's Guide for Fourth Through Seventh Grades*. Review of this guide will be helpful in providing background information and instructional strategies that promote preservation issues.

Nevada Educational Standards

The activities in this lesson are designed to help develop the skills that show mastery of the following content standards.

Writing

• Content Standard 5.0: Students write a variety of texts that inform, persuade, describe, evaluate, or tell a story and are appropriate to purpose and audience.

Listening and Speaking

• Content Standard 10.0: Students participate in discussions to offer information, clarify ideas, and support a position.

Materials

• paper and pencils

Setting the Stage

Review the importance of preserving archaeological artifacts and sites by having students respond to the following questions:

- What is the importance of artifacts and written records in the archaeological process? (They provide the evidence that helps us interpret the lifestyles of people of the past.)
- If artifacts or records are lost or destroyed, how does it affect our understanding of the past? (Our information is incomplete. This undermines our ability to make conclusions about the lifestyles of people living in the past.)

Procedure

- 1. Have students brainstorm ways to preserve our archeological resources. List responses on the board. (Answers may vary; some possible solutions include: volunteers who maintain sites and artifacts, education programs that raise awareness about archaeological preservation, support for laws that protect antiquities.)
- 2. When you have listed several preservation options on the board, have students work with partners to write letters to the editor of a local newspaper. The letters should discuss the importance of preserving our archaeological resources and suggest options for protecting sites and artifacts.
- 3. When letters are completed, have students read them to class. Send letters to newspaper for possible publication.

Closure

Emphasize the importance of citizen involvement in the preservation of our archaeological resources. Such involvement can take the form of writing letters, staying informed on archaeological issues, volunteerism, or any other activity that supports the preservation of artifacts, sites, and written records.

Assessment

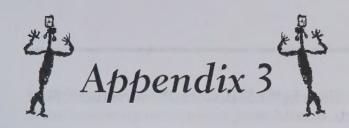
Use letters as a basis for assessment.

Extension

As a class service project, research and get involved in archaeological preservation projects in your area. Local archaeological and historical societies can offer suggestions on how your class can help preserve the past.

Reference

Smith, Shelly M., Jeanne M. Moe, Kelly A. Letts, Danielle M. Paterson 1993 Intrigue of the Past: A Teacher's Activity Guide for Fourth Through Seventh Grades, U.S. Department of the Interior, Bureau of Land Management.



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